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C. C. Bonney

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THE PRINCIPLES OF THE OPEN COURT.

BY THE HON. C. C. BONNEY.

President of the World's Congresses of 1893.

IF *The Open Court* can be made a high meeting-place for Orthodox, Liberal, Oriental, and Scientist, where, with mutual respect and affection, they may present their views of the great questions of Life and Immortality, with absolute freedom from all attempts at coercion or persecution, immense good can surely be accomplished, and the Magazine could not fail to obtain a very large circulation. I have been so deeply impressed during the last few months with the importance of this mission that I have finally felt impelled to try to put in form its principles.

1. *The Open Court* stands for Liberty of Thought, Freedom of Conscience, the earnest pursuit of Truth and loyalty to the Truth under all circumstances.

2. The Truth itself is eternal, immutable and divine; but in its various manifestations it appears differently to different individuals, according to their different mental characteristics, environment and education. Hence arise varieties in Science, Religion and other matters.

3. By the Science of Religion we mean the arrangement, study and application of religious truths according to scientific methods; for in this way errors may most readily be detected and rejected and true doctrines seen, formulated and applied to life.

4. By the Religion of Science we mean that even scientific truth should be regarded as sacred, since it is an emanation from the Deity Himself; and that this scientific truth should be reverently regarded, studied and applied to life by all Religious leaders according to their knowledge and opportunities.

5. By the Religious Parliament Idea we mean the application of the Golden Rule to the things of religion; and that differences of opinion and belief should be made the grounds for friendly conference and comparison for mutual benefit; while all controversy and persecution on account of such differences should be resolutely suppressed.

6. We hold that differences of knowledge, opinion, belief and resulting lines of conduct should not be made causes of strife, but should excite sympathy and effort to be sincerely helpful.

7. We hold the obvious truth that every one must be helped, if at all, in the state in which he is, and that nothing intended to be helpful to him can be received unless it be adapted to his present actual condition.

The unlearned person who believes in the apparent truth of the rising and setting of the Sun is entitled to even more gentle and considerate treatment than he whose scientific training enables him to understand the real truth that the earth turns her face to and from the Sun. He who is color-blind to the delicate tints of the rainbow, and he who has no ear for the finer notes of music, calls for sympathy and aid, not abuse and persecution. And yet abuse and persecution in such cases would be no more reprehensible and abhorrent to the sense of justice than would be abuse and persecution because a fellow-being is unable to perceive a scientific truth or a religious truth which may be perfectly clear to other minds differently endowed and better cultivated.

8. We hold that a large allowance should always be made for the imperfections of language and the difficulties of expressing with precision the ideas which there is a desire to communicate. It is a true maxim "That no one ever means exactly what he says, because, from the imperfections of language, no one can ever say exactly what he means." This maxim applies with great force to the different religious denominations, and the terms used in their respective creeds.

9. The supreme object of *The Open Court* is to spread the light of Science and Religious Truth throughout the world, and to bring those who hold different convictions into harmonious relations in which they may be helpful to each other. Asking respect for our own convictions, and a willingness to hear and consider our views, we stand ready to accord the like treatment to all those whose views may differ from our own; thus doing to others as we would have them do to us, according to the mandate of the Golden Rule.

10. Finally we hold that while Truth, as we have said above,

is Eternal, Immutable and Divine, its manifestations have ever varied and must continue to vary, not only from age to age, but from day to day. The mighty movement of the material universe through space only corresponds to the like tremendous upward movement of Humanity, in its wonderful evolution and development. Hence arises the impossibility of framing any creed, Scientific or Religious, which shall bind and hold the truth for future ages. The creeds, like the doctrines of Constitutional Law, must expand to meet the new emergencies which continually arise.

11. We do not regard differences of opinion and belief in Science or in Religion as unimportant. On the contrary, we hold that the convictions of Truth and Duty on which the soul rests as the result of its struggles to overcome difficulties and reach the light, are among its most precious possessions. No matter how widely we may differ from those convictions, we are bound by the highest considerations to regard them with kindness and respect.

12. The interchange of religious views should be characterised by perfect frankness and sincerity, coupled with an earnest effort to avoid giving offense. In this way only can progress be made.

In order that the expressions used in this Declaration of Principles may be understood at their true value, the writer feels that he ought to state in this connexion that he holds highly orthodox views of the great doctrines of the Christian religion. As an ultra and ardent Christian he extends the love and sympathy of the Golden Rule to Brahmin and Buddhist, Parsee and Confucian, Jew and Liberal, and to all forms of the Christian faith. In the name of the Infinite tolerance of God he appeals to them all to unite against the infinite intolerance of man to secure throughout the world the abolition of religious persecution in all its forms, and the establishment of a universal reign of religious liberty; to the end that man may everywhere "act in freedom according to reason." This is the doctrine of the World's Parliament of Religions.

Fraternal conference on differences of opinion and belief is the crucible in which the dross of error is best separated from the pure metal of Truth.

How then may the Truth be made triumphant throughout the world? By love and service. There is no other way. Always the Truth is saying to the soul "Behold, I stand at the door and knock; if any man hear my voice and open the door, I will come in and sup with him and he with me." But the Truth does not enter unbidden. It waits for the soul to open the door and bid it welcome. Thus the soul can "Know the Truth, and the Truth will make it free." And in this freedom the soul will realise the truth of the paradox that the more absolute its submission to the Truth, the more perfect will be its sense of liberty.

THE HON. C. C. BONNEY, THE INAUGURATOR OF THE PARLIAMENT OF RELIGIONS.

BY THE EDITOR.

THE Honorable Charles Carroll Bonney is best known to the world as the inaugurator and president of the World's Congresses held at Chicago, in 1893, in connexion with the World's Columbian Exposition. But this famous event, which was due to his initiative, and the success of which was the result of the tact with which he managed the large enterprise, is only the crowning consummation of many previous efforts in the pursuit of various noble ideals all tending in the same direction,—the elevation of mankind and the realisation of the new Jerusalem on earth. Mr. Bonney, like so many other reformers and prophets, was enchanted with the dearest dreams of human hopes, but his aspirations were distinguished by a deep and clear insight into practical realities. He saw the vision of things hoped for, but he knew at the same time what could be accomplished. Applying the jurist's sense of justice and an unusual business ability to the dream of the millennium, he avoided visionary methods, for he knew how things ought to be done, and if the millennium has not come about we can claim without exaggeration that Mr. Bonney has accomplished much that was deemed impossible before.

That representatives of all the religions should sit in brotherly unison on one and the same platform, each one presenting what he deemed the greatest and best in his faith, has never before been realised on the earth; and some of the Old World journals actually doubted whether the Religious Parliament of Chicago was a real fact or merely the invention of the fertile imagination of American journalists. Yet the event took place and is an historical fact which will continue to exercise a powerful influence upon the religious life of mankind. Indeed, we claim that it ushers in a new period in the history of religion which will raise missionarising to a higher

level and bring about a closer and more brotherly exchange of thoughts among the different faiths of the earth—the result of which will be that the truth will prevail in the end.¹

We came first in contact with Mr. Bonney during the World's Congresses in 1893, both in committee meetings and on the platform of the World's Parliament of Religions. A closer connexion was established when the Religious Parliament Extension was founded in 1895, of which Mr. Bonney was chosen president, and the editor of *The Open Court* secretary. Soon afterwards, with the beginning of 1897, *The Open Court*, following the advice of Mr. Bonney, adopted as its object the declaration of being devoted to the Science of Religion, the Religion of Science, and the extension of the Religious Parliament Idea. Remaining faithful to an old ideal to establish religion on the safe basis of fact, we discovered not only the religious value of science, but saw also in the Religious Parliament Idea, such as it had been actually carried out under the wise management of Mr. Bonney, the best method of establishing the truth. There is no need of quarrelling about differences of faith; there is no use in ridiculing those who depart from our ways of belief; and worst of all is persecution. The method of the Parliament is presentation of the best everybody has to offer. The Parliament is not intended to make light of the differences of faith; on the contrary it emphasises them; it is not intended to bring all down to the same level, but on the contrary to leave to all the heights which the various religious leaders have attained and to measure by them the worth of each faith. Ridicule only was excluded and critique was admitted only if made in a brotherly spirit of kindness and with proper courtesy.

The managers of the Parliament of Religions exercised a strict impartiality and did not press their own views. They endeavored to be just to all, being confident that truth would take care of itself.

Mr. Bonney, who is a native of the State of New York, was born at Hamilton, September 4, 1831, was named for Charles Carroll of Carrollton, the last surviving signer of the Declaration of Independence, and was the son of a farmer. He was educated in public schools and in Hamilton Academy, but his chief source of instruction was private study. He had also many advantages in Madison,

¹ We do not intend to underrated the famous religious conference of the Buddhist Emperor Ashoka, which is commonly quoted to prove the tolerance of Buddhist rulers. It was an enterprise carried out in the same spirit as the Religious Parliament of Chicago, but it was, after all, not an assemblage in which the priests of the various religions came voluntarily and out of their own hearts' desire; they came at the summons of the sovereign of the country who admonished them to settle their quarrels in an amicable spirit. Moreover, it was on a smaller scale, and apparently controversial in its nature.

now Colgate, University, though engaged in teaching instead of pursuing the regular course of instruction. From this University he received the degree of Doctor of Laws. He is a Counsellor of the Supreme Court of the United States, and has been President of the Illinois State Bar Association, and Vice-President of the American Bar Association.

In 1887 he was strongly recommended by leading legal, financial and other journals, for appointment as one of the judges of the Supreme Court of the United States, as a man who stands in the very front rank of Western lawyers and jurists, of high literary culture, of judicial temperament, undoubtedly worthy of that high position, and who would be an ornament to any judicial position in the country.

In the field of practical reform, Mr. Bonney's efforts have been important and largely successful. Among the leading reforms proposed and advocated by him are the following, with the dates when he began to write and speak in their favor, and, if carried into effect, the time of their adoption: Uniformity of State constitutions and general statutes, proposed in 1852; constitutional prohibition of special legislation proposed in 1854, and adopted in Illinois in 1870; a national banking system, proposed in 1858, and adopted by Congress in 1864; railroad supervision by State authority, proposed in 1861, and adopted in Illinois in 1871; a national civil service academy to educate selected men in government and diplomacy as the Military Academy does in the art of war, proposed in 1876; national regulation of Inter-State Commerce, proposed in 1878, and adopted by Congress in 1887; uniformity of commercial paper in Inter-State transactions, proposed in 1882, and since pending in Congress; a system of civil service pensions, proposed in 1884; State boards of labor and capital with plenary executive powers to prevent evils arising from labor strikes, proposed in 1886; the appointment of regular United States judges to hold the foreign Courts now held by consuls and ministers, proposed in 1888; and the establishment of a permanent International Court of Justice, proposed in 1889, and favored by eminent European as well as American jurists and statesmen and in all essential features now adopted by the peace commissioners at The Hague. Thus Mr. Bonney was exceedingly active as an author on reform and legal topics which prepared him excellently for the great work that was to bring him more prominently before the public.

In September 1889 Mr. Bonney brought forward the World's Congress scheme and proposed that "to make the Exposition com-

"plete and the celebration adequate, the wonderful achievements
 "of the new age in science, literature, education, government,
 "jurisprudence, morals, charity, religion, and other departments
 "of human activity, should also be conspicuously displayed, as the
 "most effective means of increasing the fraternity, progress, pros-
 "perity and peace of mankind."

After setting forth the plan, he added that:

"Such congresses, convened under circumstances so auspicious, would doubtless surpass all previous efforts to bring about a real fraternity of nations, and unite the enlightened people of the whole earth in a general co-operation for the attainment of the great ends for which human society is organised.

Mr. Bonney devoted four years to the World's Congress work, and in his closing address on October 28, 1893, he said:

"That these congresses have been successful far beyond anticipation, that they have transformed into enduring realities the hopes of those who organised and conducted them, and that they will exercise a benign and potent influence on the welfare of mankind through the coming centuries, has been so often, so emphatically and so eloquently declared by eminent representatives of different countries and peoples, that these statements may be accepted as established facts.

"That the material exhibit of the World's Columbian Exposition in Jackson Park is the most complete and magnificent ever presented to human view, is generally agreed, but a multitude of eminent witnesses have declared, after attendance on both, that the Intellectual and Moral Exposition of the Progress of Mankind presented in the World's Congresses of 1893 is greater and more imposing still.

"Thus the work of the World's Congress Auxiliary of the World's Columbian Exposition takes its enduring place in human history, an imperishable part of the progress of mankind."

Mr. Bonney's plan was adopted, and he was made president of the World's Congresses of 1893. The success of these meetings is well known, and there is but one opinion—that the Parliament of Religions, which is but the chief congress among more than 200 conventions, was the greatest glory of the Chicago Exhibition.

It is difficult to appreciate the magnitude of the World's Congress work. Nearly six thousand speakers and writers took part in it. These participants were selected from all the continents, and represented one hundred and forty-seven nations, states, or colonies. There were twenty departments and two hundred and twenty-four divisions in which congresses were held.

Mr. Bonney, himself a conservative man, recognised the necessity of giving the Parliament a conservative character. It could be made a success only if it was liberal in principles, only if it recognised the institutions that had developed in the storm and stress of the past, and embodied the experiences of large fractions of mankind. He accordingly deemed it indispensable to have a

conservative man as chairman of the Parliament of Religions, and he selected for the place the Reverend Dr. John Henry Barrows, a Presbyterian minister of repute, of Chicago. Dr. Barrows accepted, though reluctantly, for the spirit of the Religious Parliament was in those days frequently misunderstood, and the chairman had to suffer much animadversion and was exposed to censure and even to obloquy. In spite of all difficulties and annoyances, Dr. Barrows held out, and his tact and dignified bearing contributed not a little to make the Parliament a success.

The Parliament was unique in its way, and even if it shall never again be repeated, it will remain a landmark in the history of religion. It was an event which was typically American, and is still looked upon as all but impossible in conservative Europe, where the idea still prevails that a man can mount a platform only in company with those whose opinions he would indorse. Republican institutions and the spirit of coöperating with men of different opinions has taught us a lesson in fraternity; and even the representatives of the most conservative church did not hesitate to appear on one and the same platform with heretics, Buddhists and Pagans. Forty-six congresses were held in the Department of religion, and the justice and impartiality of Mr. Bonney's management were approved by all. He made no concealment of his own views, but avowed himself "an ultra and ardent Christian," without offending any one.

The Religious Parliament is an event of history, and the Religious Parliament idea is still living and marching along, leading mankind on the road of progress.

One of the most marvellous achievements of the Parliament of Religions was the readiness with which all the Religions of the world united in the devout recital of the Lord's Prayer, happily designated by President Bonney as "The Universal Prayer." When at the opening of the Parliament Cardinal Gibbons used it, the vast audience of about four thousand people joined in it; and having been repeated on each of the seventeen days of the great convocation, the Parliament of Religions was closed with it by Rabbi Hirsch. Thus it became a deliberate expression of the world's religious unity.

The Religious Parliament Extension of Chicago, the committee of which meets from time to time under the presidency of Mr. Bonney, is only one local exponent of the movement. The main thing is that the idea has struck deep into the souls of many fervent religious minds, and works as a leaven in the dough to bring about a change in the various religious conceptions of mankind.

Thus, Mr. Bonney started a movement which will prove to have an everlasting influence upon all the generations to come.

THE IDOL AND THE IDEAL OF THE FRENCH REPUBLIC.

BY MONCURE D. CONWAY.

THE symbolical bronze group, "The Triumph of the Republic," unveiled in Paris November 19, 1899, bore on that day a significance little imagined by the artist (Dalou) when he designed it. Twenty years ago he submitted to the Municipal Council of Paris a design not substantially different; ten years ago he was ordered to put it in bronze; it has long been completed, and its erection now is a reply to the assault at Auteuil on the President who unveiled it. By a republican instinct curiously prophetic the artist has omitted from it any military, clerical, or religious emblem; there is neither cross nor crown nor sword nor cannon. The Republic standing on a sphere extends her right hand earthward in benediction, her left hand resting on the fasces, symbol of strength in union. Her chariot is drawn by two lions on which reclines the Genius of the Revolution uplifting a torch. On her right is the blacksmith, hammer on shoulder, pushing the chariot-wheel, on her left Justice with her mace. Behind is Peace scattering roses in the path, and beside her Cupids with wreaths. A municipal placard invited the people to make at the unveiling a demonstration of their devotion to the Republic and their antagonism to its antagonists. These also issued their placard asking the people to despise this ceremonial which was that of a usurping Republic, and work for a true democratic Republic. Unfortunately for this placard (really issued by Deroulède just as he was imprisoned for insulting the President) the Senatorial High Court has for some weeks been revealing the insignificance of the two or three organisations hostile to the Republic, so that they could not claim any part of the 250,000 people (some papers double the estimate) who paid homage to the republican goddess. The most important feature of the demonstration however was not this vast number but

the fact that 1682 organised societies and unions had sent large delegations with banners and bands of music. Every variety of trade, work, art, was represented, and it was strange to see eight associations of Freethinkers, making a large regiment, marching along the noble Boulevard Voltaire—yes Voltaire—to unite in the new religion.

Had the unveiling occurred two days earlier it would have been an anniversary. On November 17, 1793, the artist David, in behalf of the Committee of Public Instruction submitted to the National Convention the plan for a memorial of the People's "Triumph over Tyranny and Superstition." On a foundation composed of the *débris* of the symbols (*idoles*) of Tyranny and Superstition was to stand the colossal figure of a Man, forty-six feet in height. One hand was to rest on a hammer, in the palm of the other hand should stand the figures of Liberty and Equality. "The victory will supply the bronze." That is, the destroyed statues and church-bells of the old *régime* would be melted and modelled into this mighty Man, on whose forehead was to be engraved "Light," on his breast "Nature," on his arms "Strength," on his hands "Toil." (*Lumière, Nature, Force, Travail.*)

But what had become of the third person in the revolutionary trinity,—Fraternity? She must have been guillotined along with the Girondins. Fresh from that slaughter the National Convention adopted the memorial design without amendment, and were such a Colossus now standing as ordered on the island (near Nôtre Dame) it would be the most genuinely historical monument in Europe. The worship of Nature,—“Nature red in tooth and claw,”—and of Thor, the god with the Hammer,—and of Liberty and Equality as held in the hand of a People built up out of the *débris* of crowns and altars, and giving both a new lease of power under democratic names,—all these are represented in that ideal of the Convention, after its decapitation, which to-day would seem a huge Idol.

And after another century has passed what will be thought of the "Triumph of the Republic" just set up in the Place de la Nation? That too will be interpreted by the history that shall follow it. What will that naked man on the lions do? Will his torch prove a light, or a brand? And the lions? When they lie down with the lambs will the lambs be inside them? Will Justice and Peace be inside them? Will the new memorial, artistically beautiful, when it suffers a further unveiling by events, prove to be an ideal or an idol?

Dalou's figures are fairly represented in the present government. President Loubet will stand only too well for Peace. When Minister of the Interior he stifled the Panamist prosecutions for the sake of Peace, and is now allowed no Peace on that account, though it was the act of the whole government. Justice is—or ought to be—represented by Premier Waldeck-Rousseau, a great jurist. The workman has in the Cabinet Millerand, the socialist. But the foremost figures, the lions, are represented by the omnipotent Minister of War, Gallifet. These are the real heads. But who is that man couched on the lions, with his torch, or brand? That too must be Gallifet.

The angry placard of the so-called "Nationalists" promised that we should see at the ceremonial the comedy of the Municipal President (Lucipia), a member of the famous Commune, clasping hands with Gallifet the massacer of Parisiens. Gallifet's massacre of a large number of prisoners, unarmed communards, after the struggle was over, was indeed the worst deed of that time, and his only apology is the usual one for military crimes, that he "acted under order" of his superior (of course dead.) However, Gallifet was conspicuously absent from the ceremony and the banquet of November 19, and the only speech from the government was from Premier Waldeck-Rousseau. It was the timid hesitating speech of a very able and personally excellent man, conscious that at the very moment of celebrating a bronze Triumph of the Republic and the principles of the Revolution, he was trying to secure Peace by feeding the military lions from the flesh of Justice, and surrendering to plumed criminals the rights of innocent men.

Let me add to the above prologue, written after the unveiling of the memorial, a study of the present situation and prospects of France which concern the welfare of the world more than it is likely, amid its various distractions, to recognise.

THE POLITICAL EQUINOX IN FRANCE.

The official declaration of the Minister of War, Gallifet, on the morrow of Dreyfus' liberation, "The incident is finished," recalls the dying cry of the ancient Jewish martyr, "It is finished!" So it seemed to the authorities, and possibly the cry ascribed to Jesus was only a proclamation by some Gallifet—or Gallio—of the time. But no doubt it appeared to the martyr also that his God had forsaken him and his movement closed. And in an important sense he was right. Morally and spiritually the movement that arose,—mythically heralded by earthquake, darkness, and return from their

graves of the saints he had superseded,—was a new movement altogether. No longer humanised by the personal element, that being “finished by the great leader’s death,” the incident that rose with his spectre speedily became a political struggle which eventually involved the whole world.

The liberation of Dreyfus has withdrawn the personal element,—sympathy for an innocent sufferer and his family,—from this case. There is no need for pity. His honor is not involved: not only has the suffrage of mankind pronounced him innocent, but his chief persecutors now admit with bitterness that the so-called condemnation at Rennes was really an acquittal. For had the judges believed him guilty they must have found not “extenuating” but aggravated circumstances, and had guilt been proved the nation would unanimately have demanded death for a man who had added to his treason the years of agony into which France had been plunged by his much more treasonable efforts at concealment. Dreyfus is therefore no longer an object of compassion. With a record of heroic endurance for the sake of his family, beside a wife whose heroism has gained historic renown, with ample means, health nearly recovered, and surrounded by devoted friends, he occupies a position which thousands might envy of being the watchword in the great conflict of principles bequeathed by his martyrdom.

It is said that the blood of the martyrs is the seed of the Church, but it is doubtful whether any canonised martyr, from Jesus down, would if alive belong to the Church claiming the sanction of his blood. Amid the many points of psychological interest in this latest martyrdom is a fact which has been veiled, namely, that whatever may be the case since the Rennes trial Dreyfus, beyond the defence of his innocence, was by no means “a Dreyfusard.” In his four-and-a-half years of silent entombment, utterly ignorant of the controversy, knowing nothing of the connotations and correlations that his case had drawn about it, nor of the moral evolutions and reversions it had caused, this victim exhibited at Rennes an attitude sufficient in itself to convince any impartial mind, however unacquainted with the evidence, of the absurdity of ascribing to him any disloyalty. The military habit was so organic in Dreyfus, deference to his superiors in command so ineradicable by any anguish or wrong, that his lawyers could not bring him to conceive the crimes committed against him by officers he had always respected. He instinctively treated them with respect in the Court even while they were bearing false witness against him. There is little doubt that the reason why Labori did not address

the Court was that Dreyfus would not consent to the exposure of the crimes and conspiracies of the officers pursuing him, an exposure which the great lawyer considered essential to success. When Labori near the close of the trial demanded a commission to obtain the testimony of the German and Italian ambassadors, he made too late a move that might have checkmated the Minister of War, Gallifet, who was passively playing the game at Rennes. It was too late because Dreyfus had previously refused his consent to the use of foreign testimony. Before the trial Joseph Reinach personally visited Germany and obtained the consent of the Berlin government to the depositions needed, but Dreyfus refused consent. An official declaration equivalent to a deposition was not used. Dreyfus would not allow it. Strong in his innocence he could not realise that it was precisely that innocence which raised over him the black cloud of mingled terror and hatred out of which fell the thunderstroke.

An impression seems to prevail in America that the martyrdom of Dreyfus was due to his Jewish blood. That is a superficial view. The recrudescence of the mediæval anti-semitic disease has been the consequence and not the cause of the Dreyfus affair. There is a potential anti-semitic mob in every continental country, but it was a sleeping bloodhound in France until the evidences of Dreyfus' innocence began to appear. When I came to Paris last year soon after the discovery of Henry's forgery, which had thrown suspicion on all the testimony against Dreyfus, the bloodhound *Judenhass* was just showing his teeth and yelping along the streets. He had a military collar round his neck, with a Roman cross pendant from it. He had been waked up because it had become clear that if Dreyfus was to be kept on Devil's Island it could not be done by any law but Lynch law. But the Jew-baiting mob was speedily silenced by the fact that some leading enemies of Dreyfus are Jews and that mob was never an important ally of the real forces represented in this historic affair, which is pregnant with issues of world-wide importance.

It is not easy to get at the heart of this Dreyfus case. The imagination of the world has been so impressed by its mountainous accumulation of anomalies, its strange incidents,—picturesque, tragical, romantic, pathetic,—not surpassed by the creations of Shakespeare or the visions of Dante, that an almost superstitious feeling invests it. Were the Dreyfus story translated from a newly-found papyrus I might at this moment be writing an essay to prove it a sun-and-storm myth. The Mithraic three-footed Sun (*Drei-fus*),

obscured by the Eastern Haze (Ester-hazy), and held in prison by the Ahrimanic "two-footed serpent of lies" (Du Paty = deux pattés), on the Devil's Island, is liberated at cock-crow (Galli-fête) on the eve of the autumnal equinox. What could be clearer? Of course I should merely smile at any scholars credulous enough to suppose that anything so impossible as the Dreyfus case could actually occur.

And yet when these marvellous facts are closely analysed a further surprise awaits the analyser, for he will find in the whole wonder, with all its figures and complications, the operation of a few commonplace forces. While following the case from day to day I sometimes thought of "the mystery of Iniquity," and almost felt as if some mystical agencies were at work—disinterested over souls of good and of evil contending,—but the phenomena always disclosed to scrutiny mere vulgar selfishness struggling against the elementary principles of justice and humanity.

Lord Bacon remarks that commotions in a State are apt to occur when political parties are nearly balanced, as storms rage at the equinoctia. Eminent meteorologists have brought the equinoctial gales into doubt, and on September 21, 1899, when the liberation of Dreyfus was announced, nature was particularly peaceful; external nature that is, but the political part of Bacon's aphorism was sufficiently justified. The tempests that attended the Rennes tribunal and the release of Dreyfus revealed the proximate equality of day and night, light and darkness, liberty and privilege, republicanism and militarism, reason and Romanism, in France. As in the biblical fable Jahve told Rebecca that it was not merely two babes that made her long for death, but "two nations are in the womb," even so in all modern countries there are contending national ideals, but in France the ideals are fairly born and organised in separate peoples. By evolutionary forces historically traceable back to the French Revolution, when the real Republic was guillotined and the military empire arose, there has been a development of irreconcilable nations in France. Each of these has intensified the other, inasmuch that in France Militarism on the one hand and Republicanism on the other have not only been evolved in mortal antagonism but to a respective consistency and completeness unknown in other countries. We hear much of the Militarism of Germany, and it is bad enough, but the Germans could not tolerate the Militarism of France. In France, with a smaller army there are a hundred more officers than in Germany. The 25,000 professional military men in France represent a hierarchy reigning by means of three millions

of non-professional soldiers over the thirty-eight millions of people from whose families the soldiers are drawn. These families pay annually 850 millions of francs to support this Power which trains their sons to be ready at any moment to massacre their parents and relatives should their officer so order. This hierarchy instead of being weakened by its German defeat gained supremacy by that defeat. Thirty years ago the clamours for Revenge and for recovery of Alsace and Lorraine were the excuse for the whole population enthroning their incompetent chiefs as absolutely over the Republic as they had been over the first empire, and when those clamours became too absurd for effect the military sovereignty was found to have built beneath and around it foundations and buttresses quarried from all the infirmities, surviving superstitions, and anti-social forces of the more ignorant populace. The old cry for Revenge was succeeded by an appeal to terror. The notion was fostered that if the nation was not kept a military camp, and the chiefs absolutely obeyed, Germany would at once enter and take possession of the country! The war with Germany was thus continued as a domestic institution, so to say, and a chronic reign of terror superinduced which enabled the military hierarchy to secure that irresponsibility to civil and moral laws which is the privilege of war. In war forgeries, lies, murders, become patriotic stratagems, and so forth.

This sort of thing operating for a generation developed the military hierarchy to a magnificence, to a power autocratic, aristocratic, and unscrupulous, which made it the centre of gravitation. To it gravitated the priesthood, for authority could restore lost authority. The host of the titled and their snobs gravitated to the only legalised aristocracy. Royalists, imperialists, Cesarians, all enemies of liberty and equality courted this military majesty, which made the Minister of War dictator of France. It made no difference whether the War portfolio was held by a General or a civilian, by a Mercier or a Cavaignac, a Freycenet or a Billot, l'État Major dictated its will to that Minister, and that Minister dictates the same to the Cabinet and the President. So it went on until on this Dreyfus case Brisson, president of the Cabinet, ventured on the most heroic step that has been taken by any French statesman within this century. For daring to insist on revision of the Dreyfus case against his Minister of War backed by other Ministers Brisson was hurled from office by a panic-stricken parliament, but his act was the first sign that the Republic meant to struggle for its independence.

Militarism has no wish to subvert the present French constitution, which is well adapted to its purposes. At the opening of the Senatorial Court for trial of the conspirators against the Republic the president of the instruction and the republican journals remarked with satisfaction that not one military man was found among them. This however was really an indication of the subjugation of the Republic. At the time of that conspiracy l'État Major was Dictator over the Republic, utilising its machinery, receiving its wealth and monopolising all legalised pomp and privilege. Why should they transfer all this to some interloping Duke of Orleans or some demagogue Deroulède?

However, the brain of French Militarism proved not equal to its opportunities. There was but one part of the Republic's machinery which was not under its control,—the Judiciary. If it had possessed the wit, when Henry's forgery was confessed, to revise the Dreyfus case by another Council of War, l'État Major would have risen even higher. But it determined to vindicate the infallibility of a War Council against overwhelming evidence of its error, and Militarism was compelled to accept solidarity with all of the parties that wished to rule or ruin the Republic. The strongest parties wished to ruin it, namely the royalists and the Deroulèdists. This the military chiefs did not wish, but they had to share the disgrace of their allies in the anti-Dreyfus struggle. The effort of Deroulède to induce General Roget to take possession of the presidential mansion, the personal attack on the new president (Loubet) at the races, excited wide-spread anger throughout the nation. It was felt in Parliament. The servile Minister of War, Freycenet, was hissed, and when he resigned it was really the resignation of the Ministry.

The Military Power could not escape from the disgrace of these really insignificant groups which on their side, without caring much about the Dreyfus affair, had made common cause with l'État Major for ends of their own. As the reaction set in it was found that besides the few eminent officers who had taken up independent positions,—Picquart, Hartmann, Frœystetter,—there were others that gathered courage to dissent, and a considerable number of lay Catholics renounced the leadership of their priesthood. Then there is a large commercial class which without caring much about the Dreyfus case recognised that the Antidreyfusards were indifferent to the fate of the Exposition. The royalists and related leagues were evidently anxious to wreck an Exposition which would bring *éclat* to the Republic, and the military chiefs wished the republicans

to understand that the festival must depend on their protection and co-operation. Over that suburb of extemporised palaces and domes rapidly rising beside the Seine a sword is suspended. A military *coup d'état*, or even preparations for one, would keep all foreign contributions and exhibits at home. In England commerce is in alliance with Militarism, which only acts abroad, and conquers new markets, but in France the merchants and manufacturers are unfriendly to Militarism which only acts at home and keeps up in every part of the country a menace of the domestic peace needed by industry and trade.

Thus the martyrdom of one Jew, breaking up the old political groups and turning their leaders into fossil remains (e. g. Meline, Dupuy, Freycenet,) divided the nation into two great parties. Their issue is: shall the Republic be ruled by civil or by military authority? On one side four fifths of the army (including the police), all the priesthood, and all the Catholic peasantry who obey their priests, all the royalists, bonapartists, anti-semites, snobs, and rowdies. Against these all the scholars, professors, protestants, artists, authors, socialists, freethinkers, real republicans, merchants, skilled workmen, manufacturers.

The first of these parties presents a remarkable example of reversion. The best brains having been republicanised, since the fall of the second empire, and abandoned the military profession, the army has been left to the control of an inferior class who have given it a retrogressive development towards the powers and privileges militarism enjoyed under Bonaparte. But a brainless Bonapartism is a new thing. So far as mental ability has been tested by the Dreyfus case the brightest head in the French army was Esterhazy! It has been shown that few of the chief officers know any language but French, that many of them are ignorant of all sciences, even about guns, and that ethical, legal, or constitutional instruction is unknown to their military schools. It was made a point against Dreyfus that he was given to scientific investigations; against Picquart that he sought the truth and would not conceal it; and it has been established that in the Council of War (1894) which condemned Dreyfus there was not one officer who was aware that it is illegal to submit to judges evidence unknown to the party they were judging. Not one realised until some years later, and most of them do not yet realise that their action on those secret pieces transformed them into a bench of lynchers. Their ideas of honor are superstitions: a military inquiry found that Esterhazy in entering into the business of supplying a brothel to make money had

done nothing contrary to military honour, but a penalty was inflicted on him for some act of "indiscipline." It was a superstition that saved Dreyfus from being shot instead of degraded and tortured. The uniform so sanctifies the body that has worn it that it carries a degree of immunity even to a traitor, as in the case of Bazaine. They tried to induce Dreyfus to kill himself, and his refusal, because of innocence, produced on some subordinate officers an impression that he must either be innocent or the most hardened of criminals. As to this it is difficult to credit the crusaders against Dreyfus with sincerity, for occasionally they have been surprised into a revelation of their belief in the victim's innocence: e. g. in their panic lest the original documents mentioned in the bordereau should be obtained from Germany. Had they believed the documents to be from Dreyfus they would have been eager to obtain them.

While this reversion has gone on in the Militarist party, an evolution has proceeded among the civilian republicans which renders them to-day, in my opinion, the most thoroughly instructed and trained political party in the world, and their publicists the most accomplished interpreters of republican principles.

Unfortunately the intellectual and moral disproportion between these antagonists can not determine the issue in favor of the wise and just cause. Unscrupulousness sometimes has a physical advantage over scrupulousness. Among political gamblers logic is a "suspect." If you once begin to deal with institutions and politics by rules of logic and pure reason where will you stop! "At the base of every institution is a fiction," says Renan. The completeness of the facts and the arguments adduced by the defenders of Dreyfus proved so much more than his innocence, proved such fundamental faults in the whole military system, that the army felt itself under siege and has for several years resorted to the stratagems of war. These stratagems admissible in war become malignant lies, false witnesses, and forgeries in time of peace, and the great complication arises from the fact that the civil laws theoretically hold the military men accountable for their avowed crimes, committed because they felt themselves at war. The only treason of Bazaine was that having gone out to defend the empire he did not regard the Gambettist republic as any France at all, and would not fight for it. The difference between him and the present Generals is that they do not regard a republic in which l'État Major is subordinate as any France at all, but are loyal to a "republic" in which l'État Major is Dictator.

The fatal superiority of Militarism is that it is armed. After the fall of the Dupuy ministry a government could not be formed without military co-operation, but it is now pretty clear that General Gallifet accepted a portfolio only on conditions: Dreyfus was to be recondemned, in order that the criminal officers might be shielded, and then pardoned on a plea for pity coming from the military Minister of War. He must not owe the initiative for his liberation to the civil powers.

I remarked a little thing which escaped notice here: President Loubet in his decree did not use the word "pardon" but *remitted* the penalty: "*Il est accordé à Dreyfus (Alfred) remise du reste de la peine, etc.*" There is no regular formula for pardons, and the mission of the word (*grâce*) may have been without significance. But it is not I believe without significance that the Minister of War in publishing the decree gave it the endorsement: "Decree pardoning (*graciant*) the condemned Dreyfus (Alfred) etc." It was boasted by the enemies of Dreyfus that he admitted his guilt in accepting pardon, but Loubet may have foreseen this and so worded his decree that the prisoner accepted only release from a penalty illegally inflicted.

Gallifet then hastened to announce to the army officially that the Dreyfus "incident" (!) was "closed"; that there would be "no reprisals"; and that the army must be silent about it, by compulsion if necessary. This was followed by the mild disgrace of General Negrier and several others who did not conform to the order. But on the other hand officers who had testified in favor of Dreyfus at Rennes—Hartmann and Frœystetter—were virtually punished, and it now appears that in order to shield Generals who have committed crimes against the common law there are to be "reprisals" against those who secured the revision. The "amnesty" which the government has demanded of the Senate does not mean merely that the officers who have committed forgery and perjury, and who have destroyed vital documents belonging to the State, shall not be prosecuted but that they shall remain commanders of the army. Nay, it means that the effect of their avowed crimes shall continue permanently. Dreyfus shall be prohibited from vindicating his innocence and honor; Picquart shall be left without redress for his eleven months imprisonment and without possibility of proving the falsity of the charges maliciously brought against him; Zola shall be rendered unable to recover the money seized in his house, or to reverse the sentence pronounced against him on evidence admittedly false. The "amnesty" will thus be really a

confiscation of the actual rights of citizens such as was rare even in the worst days of feudal tyranny, and a prolongation of the recent scandals to eternity.

There will be some conflict in the Senate, but the debate will be under the suspended sword of Militarism held in the hand of Gallifet, who regards this measure as the only means of fulfilling his promise to the guilty officers that there shall be "no reprisals." The eminent jurist nominally at the head of the Ministry has exacted in payment a reform of Military tribunals and procedure providing that the judges must have studied law, and that all offences under the common law shall be tried in ordinary courts, but the prospective advantages of this measure can by no means reconcile the conscience and justice of France to an "amnesty" which amounts to a third and irreversible sentence against Dreyfus, and includes with him the noble men, Picquart and Zola, who delivered him from his living tomb. Nay, which amounts also to France taking on herself the guilty burden of the accumulated crimes which have kept her in agony for years and finally disgraced her in the eyes of mankind.

It is possible that the Premier, while fulfilling a contract with Gallifet by proposing the amnesty, is riding for a fall. Little is said about any "appeasement" to ensue. Gallifet knows perfectly well that the object of the amnesty is not the peace of the nation but the protection of certain felons by making the nation their accomplice. He is therefore advertising all who may be unwilling to take their share in the felonies of what they may expect, by demanding five years' imprisonment for a powerful editor and author, Urbain Gohier, whose attacks on military abuses and plumed criminals are claimed to be insults to the army. Freycenet, late Minister of War, and Lockroy late Minister of Marine, prosecuted Gohier for his book *L'armée contre la Nation*, but the jury would not assist this official attack on liberty, and the trial only increased the circulation of the terrible collection of facts in that brilliant work. But where the civilian Ministers failed the military Minister may succeed, for Urbain Gohier's pen steadily continues (in *L'Aurore*) its vivisections of Militarism. This he regards as the survival of ancient tyranny over the army of the Republic to which he and all citizens belong. There are many republican optimists who regard all this reactionism as a feint, and point to the perpetual attacks of the anti-dreyfusards on Gallifet. He too, they say, is riding for a fall against Urbain Gohier and freedom of the press, so as to say to the army, "I have done my best, but the country is against

you." If that shall prove to be the case, and if the amnesty is deprived of its outrageous features, there will be nothing to fear beyond some military menaces, for the royalist leaders will be in disgrace or in prison, and the political plots against the republic are exploded. The officers generally will have no recourse but that of Offenbach's Grand Duchess of Gerolstein, "If you can't get what you set your heart upon, you must set your heart upon what you can get." They can get from the Republic their 850 millions of francs per annum for a minimum of work. There is no prospect of their getting from any pretenders what they now have.

But I am unable to share the optimistic view. I see perils ahead. Along with the monumental "Triumph of the Republic" is going up a monument to the confessed forger Lieutenant Henry, who committed suicide, thereby saving his accomplices. On the day when the "Triumph" was unveiled, and the proposed "amnesty" published, General Mercier was proclaimed president of the Henry monument committee. Mercier is the criminal from whom proceeded all these woes and convulsions of France. His admitted crimes constitute Mercier's only fame, for he is otherwise an insignificant creature. This exaltation of confessed crime when committed in the interest of a handful of commanders regarding themselves as France, indicates a cynicism, a moral recklessness, a secession from humanity, from which Gallifet may happily prove to be free. The anti-dreyfusard press evidently so believes and he must so far be credited by hope. Moreover he has a stain to wash out,—that massacre of the communard prisoners. But I ponder the words of Confucius, "You cannot carve a statue out of rotten wood." I also recall Zola's words, "Military injustice cannot be redressed by military justice, because this is not free." Gallifet is a man of little knowledge, and his intellect may be estimated by his considering a struggle that has moved the world an "incident," and as "closed" by the absurd declaration of a military court that there are extenuating circumstances for high treason! He has given no sign of interest in the question of right and wrong, nor of any knowledge of or care for the opinion of mankind. The crisis is one requiring the greatest intelligence, wisdom, virtue, possible to man, and the supreme guide in it is one whose long record excites but the hope that advanced years may have made him conscious of the blots on it, and stimulate him to efface them by some great service to the country his comrades have afflicted, degraded, crucified. Either this salvation will he bring, or an intellectual and moral desolation to be called "appeasement."

TANTE FRITZCHEN'S LAST HOUR.

A SKETCH BY HANS HOFFMANN.

[A portion of the first and all of the last of a series of sketches entitled "Tante Fritzchen," in Nos. 4-7 of *Deutsche Rundschau* for 1899.]¹

I KNEW Tante Fritzchen in my boyhood, and again later when I was a grown man and she was in her last years. But I must say, the two pictures in my memory harmonise but poorly, coincide in only a few points; the picture from my youth is severe and bitter and really terror-inspiring; the later one is that of a whimsical old lady with a heart of gold. So it seems that the instinct of the child, which is usually so reliable, may in exceptional cases be entirely at fault. To be sure, Tante Fritzchen herself was an exception to all reasonable rules.

And so it came about that other people of the little seaport village, depending on their individual experiences, judged her so differently that it was a wonder to hear them talk; she was credited with absolutely all the possible human qualities, from exquisite malice to the most unselfish and angelic kindness. But the sum and substance of all these opinions amounted to about this: After all she is not so bad as she seems to be.

The explanation of this contradiction, simple as it was, occurred to me only after some time, only after I had zealously collected a number of tales about her that were current gossip, and compared them with my own experiences and observations. And the explanation was this: that she was by nature of such a tender and amiable spirit, so sentimental, in the good sense of the word as used in the last century, that it amounted to helplessness. And since it was inevitable that such kindness should be abused over and over again, she had gradually equipped herself with artificial spines and thorns for her own protection, and these had grown

¹Translated by W. H. Carruth.

longer and sharper in the course of time so that they often hid almost entirely from superficial eyes the true nature of her soul.

But in the nature of things superficial eyes are in a majority, and as the many who had shared her benefactions did not always feel moved to proclaim this fact in the market-place, there was no proper counter-balance laid upon the scales of public opinion. Tante Fritzchen was always more feared than loved by the good villagers.

And it must be admitted that she had a way of wrinkling up her face which seemed to give abundant justification for such fear, and the lightnings which she shot forth in pretended or genuine wrath from behind her great horn spectacles were calculated to terrify even the most courageous. That she was physically a slight and delicate figure was entirely forgotten in the presence of such wrinkles and such lightnings; indeed, this rather added to the dread of her a certain supernatural smack, just as a wicked dwarf is apt to seem to us more uncanny than a threatening giant.

As to station and business Tante Fritzchen was the childless widow of a sea-captain who by his capacity and fortunate voyages had accumulated a considerable fortune, but had early died a genuine seaman's death in the faraway ocean. He had invested all his savings in ships, and the widow continued to manage with great prudence and vigor the difficult details of this extensive shipping-business, so that her income increased constantly despite her almost extravagant but unobtrusive charities.

THE LAST HOUR.

Several days before the incidents happened which I am now about to tell, a rumor had floated about the city that Tante Fritzchen was dead, and the rumor held its own persistently despite the declaration of the portly doctor that she was still alive. True, he must be supposed to know; but on the other hand, others knew that the coffin had been carried into her house, for they had seen it with their own eyes. And where there is a coffin there is also a corpse; that is as certain as to infer fire from smoke.

But nevertheless the doctor had been right until now. To-day, at last, he hastened with a very grave face and with quickened pace to the house of old pastor Rathke and told him that she was now really approaching her end; medical skill had done all in its power and could now surrender the field to the consolations of the clergy. He warned the pastor not to be deceived if he found her

perhaps cheerful and even animated, for the familiar fact of a last revival of vitality was to be seen in a very intense form in the case of this wiry nature.

Old Rathke put on his clerical robe, drew his official cap over his white hair and set out as rapidly as his seventy-eight years permitted; he and Tante Fritzchen were almost exactly of an age.

As he approached her bed he was astonished at her appearance; all at once her pale and sunken features had apparently lost all their sharpness, keenness and fierceness, the mocking and malicious aspect which so many people had been afraid of, and were transfigured with amiability and serenity, save for a faint touch of melancholy that came over them now and then like a veil.

The nurse left the room in silence as soon as the pastor entered; it was evident that she had been directed to do so.

"The end is coming," said the sick woman positively and with a firm voice, "we must make haste to consider what I still have to talk over with you. True, it isn't much, but after all something. I thank you, pastor, for coming so promptly. It is strange, after having had nearly a century in which to live one's life, that the hours seem too few at the close."

Affected and almost confused by her calmness, the pastor mumbled some words as to its being reserved for the grace of God to say whether her days might not yet be extended, and that human knowledge and prognostication was very deceitful; for himself he considered her looks to-day very vigorous and natural.

But Tante Fritzchen shook her head placidly and said, pointing to the door of the adjoining room:

"Just look in there, then you will know; you need not practise any deceptions upon me. I am ready to go; my baggage is in order."

Old Rathke opened the door and could scarcely suppress a cry of horror: what he saw was a neatly trimmed coffin ready for occupancy.

"Now you will believe me, won't you?" said Tante Fritzchen, as he came back to her side deeply shocked. "I am in earnest about dying, and should be so even in case the good Lord asked after my wishes in the matter. I had the thing in there made recently in order to have all my accounts in order. I never liked to burden others with my personal affairs if I could attend to them myself. Every man should look out for himself, and so must every woman, especially if she is a widow. And then, I like to supervise the workmen; otherwise they are seldom to be relied on, and one

likes to see what he is getting for his money. Now my mind is at rest on this subject; Master Klemm has done a thorough job. And now, dear pastor, now there is really only one thing more that I would like to see, or rather to hear, and that is your funeral sermon. For of course *you* must give it; for God's sake don't allow young Mr. Hülsbach to do it; I never could endure him, not even his wedding addresses, and then, to think of a funeral! Promise me that, dear Rathke; I tell you, if you don't I will knock on the lid of my coffin, and the people shall have one more good fright on my account. You know how I can act. But I suppose I cannot expect to hear you give it; one cannot order a funeral sermon in advance, since it is no mechanical job, at least not in your case, though it might be in Hülsbach's. But just for that reason I do not wish to hear anything clerical from you now,—so please do me the small favor to lay off your robe, dear pastor. In church I always liked to see you in it, and with the bands, too, as you well know; but here in my chamber,—it would seem as though I were already laid out and you were delivering the sermon. And that is just what I don't want. For the few hours that may yet be allotted to me I want to feel really alive."

And when the old man had obeyed her wish in silence and laid off his black official robe she continued her requests with something like a roguish smile:

"Now one thing more: you have said A, say B too; put on my dear departed husband's dressing-gown. It is in the clothes-press yonder; it has been hanging there unused for forty-five years.—I have saved it from the moths all that time.—Do you see, it fits you very well, although my husband had somewhat broader shoulders.—And now light one of his pipes,—you know them well, and know that I keep them in order for an agreeable visitor.—So; now I am satisfied, now you look comfortable."

In fact the pastor had followed her directions almost mechanically, and now sat facing her as he had sat so many a time on his pleasant Sunday visits. But yet his heart was not entirely at ease, for he could not adapt himself right away to the circumstances. The pastoral consolations which he had had ready prepared seemed to get lost in the dressing-gown or to float aimlessly away into the air on the mighty clouds of smoke.

So there was a long silence, during which Tante Fritzchen looked at him at first rather curiously and then quite mournfully.

"Well, think of it, Rathke," she said at last; "just this way my husband ought to have been sitting beside me,—at least, until

within a few years,—but that happiness was not allotted to me; he has been dead so long, so fearfully long—”

Here the tears came to her eyes and there was a gentle convulsion of the waxen pale features.

“Be of good cheer, dear friend,” the pastor quickly interrupted her, “the time of waiting and longing will soon be over. You will live for ever united with him in Abraham’s bosom.”

Suddenly Tante Fritzchen half shut her eyes in a curious way, and said with an almost comical contortion of her mouth :

“Oh please don’t put your official robe on again, dear pastor ! You know well enough that I am no free-thinker, or whatever you call them ; I have always attended church steadily, as long as I was able, and always listened to your sermons gladly and devoutly, and believed the most of them,—but precisely with Abraham, it’s like this: I never could get up any real confidence in him. I admit that it is sinful to talk so, but it would be more sinful still to begin lying now just before the closing of the gate. In the first place, the very name,—I can’t help it, I keep thinking of that infamous scoundrel of an Abraham in the Wiesenstrasse, who paid such a ridiculously low price for my departed husband’s old trousers and afterwards worked them off on the poor people at such a scandalously high figure. To be sure, the old patriarch is not to blame for that, and it is stupid to think of him in this connexion ; but I can’t get rid of the thought. And then, after all, you see this old patriarch is really to blame, at least for my being unable to get very enthusiastic about him. The affair with Isaac is altogether incomprehensible to me : that he was willing to sacrifice him. No ! And even if God commanded it ten times, it was his place to say : Take my head, my life and my soul, but I shall not commit such an atrocity upon the innocent child ! Not even a god has a right to command me to commit such cruelty, or at least I have no right to obey !—But there’s the trouble. Abraham seems to me like one of these fawning tuft-hunters ; we have them too, always looking up to those in authority, and saying and doing everything that those in authority wish, and afterwards getting for it their decoration or their title, just as Abraham was made patriarch for it. Our former mayor was just such a contemptible creature ;—well, he may very likely be resting now in Abraham’s bosom. But I have little desire to meet him there ; our quarrels would begin again right away. True, it would be a satisfaction to me to go on harrying him there.”

“Beloved friend,” the pastor interrupted her here, after several vain attempts, “you surely should direct your thoughts to

other things in this solemn hour. At least, let those old quarrels rest. Remember the petition: And forgive us our debts as we forgive our debtors."

"All the world, if you will," said Tante Fritzchen vigorously, "but not the mayor. The fellow was a blackguard and a liar; I have not forgotten what my husband always said of him: He lies even when he has no need to. No, actually, I can't forgive him; and I think the Lord will excuse me in his case. I don't intend to set up for a saint before Him. I wish simply to go quietly along with the rest as average-good."

The pastor drew a deep sigh.

"The Lord will not lay up your impenitence against you too severely," he said in a troubled tone; "He will consider that your heart has always been gentler than your tongue. But yet, think of the solemnity of this hour, dear friend! Turn your thoughts to love and peace! Try to soften your heart by thinking of the reunion with your husband, that excellent man who was taken from us, alas, so soon. But God surely must have raised him to Himself in glory."

"He has! He must!" exclaimed Tante Fritzchen with ardent conviction. But then her face assumed suddenly an expression of sadder reflexion, even of melancholy.

"And I shall not see him again!" she said softly yet positively.

"What talk!" said the pastor with feeling; "dear friend, why will you not put your faith in the mercy of God, who has promised eternal bliss even to sinners if they believe and repent?"

Tante Fritzchen looked up at him with a strange, firm, clear and resigned expression.

"But I do not wish to live on after my death," she said quietly, "and God will not compel me to against my wish."

"Gracious heaven!" exclaimed the pastor in dismay, "is it possible that you do not believe in eternal bliss? And if you believe in it, how can you help desiring it?"

"I believe in it," she answered calmly; "every one will receive eternal bliss whose heart longs for it. But God cannot force any one to it. And I do not wish it. I do not care to live longer. I am weary and I want to sleep."

"The Lord will refresh your soul and make it rejoice unto life," said the pastor, not without silent horror. But she shook her head emphatically.

"He must not do that," she replied hastily, and as though in

secret anxiety, "and He will not do it either ; for He knows that I have nothing to seek and nothing to find in His heaven."

"And your husband?" exclaimed the old man, confused and shocked, "whom you loved so much and mourned so deeply ; is it possible that you do not wish to see him again ? Dear friend, what talk is this ?"

"No, especially not him," she said sharply and quickly, her eyes growing strangely troubled ; "I don't want it to come about that I shall have to meet him again."

"Inconceivable ! Impossible !" cried the pastor, quite overcome with amazement ; "then did you really not love him ? Was your heart really not attached to him ? But how can I believe this, after all that I have seen in you in the olden times and then on throughout your long and faithful widowhood ?"

"I loved him with all my soul and with all my strength," said the dying woman solemnly, "and when he was taken from me I should never have survived my grief but for the sure hope of meeting in heaven. This belief, and this alone, supported me. But that is such a long, long time ago. Forty-five years, what an immeasurably long time that is ! People become total strangers in forty-five years if they are not living together. He was a young, joyous man when he passed away, and I was a very young woman. And now I have come to be a shrivelled old woman, and have entirely different notions, different hates and different loves, from those we shared together. And he knows nothing of all that has come to me since. How shall I get on in heaven with such a young person ? There is no help for it, we have grown apart in the many, many years. I can no longer understand such young people, nor they me. Why should he have to go about in heaven with such a wrinkled rag ? If he should look at me there with wide, strange, frightened eyes—I couldn't bear that. And he would seem to me like a good and foolish boy ; why, I was old enough long ago to be his grandmother. No, dear Rathke, you see that would not do. He has eternal bliss, and I want him to keep it ; and therefore I must lie down and sleep for eternity ; I don't want to be in his way there. And I am perfectly sure that the dear God will grant me my desire. He cannot give one any other bliss than what he wants ; and mine is sleep. I am tired of life and do not care to wake again. God will hear my prayer."

She ceased and closed her eyes and looked so weary that it seemed as if she were really on the point of sleeping over into eternal rest.

The old pastor had long since let his pipe go out ; he was torturing the long stem with his nervous fingers, and sighed and sighed, but almost inaudibly.

"Strange! Strange! Strange!" he kept murmuring to himself, shaking his head.

Finally Tante Fritzchen opened her eyes again and asked in a clear voice: "What is there so strange in this?"

He stroked softly the shrunken hand that lay on the coverlet, and said:

"You surely ought to know that in heaven there is neither marrying nor giving in marriage; we shall lay off the earthly and go thither in transfigured bodies. The Lord will make us like His holy angels."

"Yes," replied the old woman, smiling, "I know all that. I always gave good heed to your sermons, especially at funerals. And that may fit others, but not me. You see, dear Rathke, it is a good deal of a job to transfigure such a person as I am into an angel. To be sure, there is no doubt, that our God can do it, for He is omnipotent; but if it were done I should be something entirely different from what I have been on earth in youth or age; I should no longer be the wilful, foolish person whom my husband loved; I should be in his eyes an entirely different creature. And so would he be to me. Here on earth he was an excellent fellow, but by no means an angel. I can tell you, dear Rathke, that he could be as rough as a hedge fence, even to me, when I occasionally got too silly. And do you know when I liked the man best? Just when he got so downright rough. Then was when he seemed to me so strong, and I wanted to kiss his hands as those of my faithful protector. And now consider: As a transfigured angel he cannot of course be rough,—that will not do in heaven,—and so I should never see him any more as I liked him best. And I am afraid that I wouldn't really like him any longer in that case; for this is my way once for all: you see there are people here on earth who have already something of the transfigured angel about them, especially pastors and pastors' wives, and many others too; and just such people I could never take to in my life. I always thought to myself: They may be good angels, but probably not useful men. And must I meet my husband again and find him that sort of a person? Why, I cannot; that would not be my husband as I knew him.—Don't take offence, dear Rathke, at my talking thus; you don't need to apply it to yourself, you were never of the transfigured sort; that is the reason I always got along well with you.

—And so I think we will not quarrel now at the close over things about which each of us will stick to his own opinion after all. Many things one can take on faith from others, especially from pastors, but other things again one can only work out for himself. What is in the Scripture we all believe, but each one must in the end settle for himself how it is to be interpreted. For my part, I am weary and want to sleep. . . . My goodness gracious, dearest Rathke, your pipe has gone out! Light it again, and then sit a while longer and puff away vigorously. But don't talk any more of hard matters; I have said my say and don't want to think any more; I am already beginning to feel distress."

The old man lighted his pipe again obediently and smoked in silence, occasionally stroking her hand gently. She was lying quite still now and looking at him with pleased eyes.

"Why, it really seems to me now," she resumed after a long silence, "almost as if my dear husband were sitting here beside me and puffing away. Ah, just think, if I could see him so in heaven with his pipe and dressing-gown! But of course that would not do; it isn't transfigured enough.—And in any case, if he could have grown old along with me, and we could go over together, or nearly together! It is awful, when two grow apart so and one of the two has to realise and know it. O God, I am tired, and want to sleep, just to sleep."

She closed her eyes again and relapsed into slumber or silence.

The sun shone through the window upon the curling clouds of smoke, for the old man was smoking very hard; but it was probably not the smoke that caused him to draw his hand across his eyes every now and then.

All at once she exclaimed with animation:

"But dear Rathke, when you get to heaven,—you can't last very much longer either,—greet him from me, and tell him what I said to day. He will surely understand me; he always understood me best just when I had my own peculiar notions which other people thought foolish or queer. And he cannot have forgotten me so far that he would be different in this.

"And then tell him to remember sometimes how we met that day at pike-fishing on the Haff, sixty years ago now, he in his boat and I in mine. And how the boats gradually got nearer together, we didn't know how, and how we kept getting redder in the face, both of us, until suddenly he was sitting in my boat, we didn't know how again; and then all at once we were saying 'Du' to each other, quite as though it came of itself, as though it had always

been so ; and yet we hadn't been acquainted so very long. And it seemed to us as though there were no sweeter word in the whole language than that. And then again—well, you see, dear Rathke, you only need to remind my husband of that hour, and then watch and see what eyes he will make ! And really it was very beautiful on the wide water all alone together. I am very sure such things will not be forgotten even in heaven, for they still warm me on earth despite my seventy-eight years.

“So, dear pastor, now I am through with my confessions. And now you will be so kind, won't you, as to leave me alone a little. Before I die I would like to dream a little of those old times ; and one can do that only when one is all alone with himself. But there is one who will be with me,—you know well, who. And afterwards give him my greetings and tell him all about it.

“And meantime you can smoke out your pipe in the next room, and be thinking out a new and vigorous lecture to give this old sinner. So, farewell, old friend, dear Rathke, dread homilist !”

The old pastor obeyed, and left after a gentle pressure of her hand. As Tante Fritzchen watched his back, she murmured quite delighted : “The old dressing-gown ! The old dressing-gown !” And then she closed her eyes with a cheerful smile.

When Pastor Rathke looked in softly a half hour later, she had fallen asleep forever. But the smile was still upon her lips.

THE YEAR ZERO.

THE questions collaterally involved in "the last year of the century" controversy possess a scope and interest quite independent of the seeming triviality of the main problem, and the considerations which F. Pietzker recently advanced in the *Naturwissenschaftliche Wochenschrift* may be found worthy of notice from both a scientific and an educational point of view.

While almost perfect harmony prevails among chronologists as to the main point at issue, namely that the year 1900 really belongs to the nineteenth century and not to the twentieth, a more serious controversy has arisen, which affects the general correctness of our method of reckoning time backwards and forwards from the beginning of the Christian Era. By the common method of computation the year just preceding the beginning of the Christian Era is denoted by -1. The astronomers see in this practice an ambiguity, and by them this year is denoted by 0.

The difficulties which arise here are apparent. In introducing a year numbered 0 there is no more reason for adopting the year preceding Christ's birth than there is for adopting that succeeding his birth; in fact, the latter would seem preferable, although then the nineteenth century would cease with the year 1899 and not with the year 1900; just as the twelfth number of Volume XII of *The Open Court*, which began with No. 500, was called No. 511. In order to avoid this inconsequence it has been suggested that since the date of Christ's birth did not coincide with the ending of the year, the year zero should be defined as that in which the date of Christ's birth actually fell. If this view were accepted, the year zero would not be the first year before our era, but would be the first year of that era itself, and we should then again be compelled to adopt a method of reckoning which is quite opposed to that accepted by astronomers.

But the matter has been still more complicated by certain ac-

cidental and arbitrary circumstances which accompanied the introduction of our chronology.

The originator of the Christian Era, Dionysius the Little, a Roman abbot who lived in Italy during the sixth century, selected as the starting-point of his enumeration, the first day of January of the 754th year of the so-called Varronic Era of the Romans; that is, of the year in the last weeks of which according to his belief Christ was born. This year was made "the year one" because it was nearest to the date of the Annunciation (the twenty-fifth of March), from which date it had been the practice of the ancient fathers to reckon the Incarnation of our Lord. The Dionysian Era was not universally accepted until the ninth century, and during the interval which elapsed between its suggestion and adoption the date of the beginning of the year oscillated between the twenty-fifth of March and the twenty-fifth of September. But the inconveniences which arose from so undecided a state of affairs speedily made themselves felt, and the New Year's day of Caesar, the first of January, was at last definitively adopted.

We see thus that we do not reckon time from the birth of Christ, but from a point in the old chronology indirectly related to the date of Christ's birth. In fact, however, it is quite indifferent whether we regard the first of January after Christ's birth or the day of the Annunciation selected by Dionysius, as the beginning of our era, because our entire chronological system is, owing to the uncertainty of the date of Christ's birth, in error by several years.

Regard it how we will, the method is fraught with inconveniences, but these inconveniences are inherent in the nature of the question and would not be removed by the introduction of a year zero. A few practical examples will render the case clear.

It is asserted by the astronomers that we are compelled by the accepted method to resort to a double manner of computing time in many instances. In computing the interval of time which has elapsed between two given dates, we employ a different rule when the years have the same signs from what we should if they had different signs. For example, if we had to determine the age of Frederick the Great in years, we have only to subtract the year of his birth, 1712, from that of his death, 1786, to obtain his age, which was 74 years. If we desired to determine the age of Augustus, however, we should not be permitted to subtract the year of his birth (-63) directly from the year of his death (+14), for in that case we should obtain 77 years as the length of his life, which was actu-

ally only 76 years; but we should have to reduce the first number by 1, and employ the equation :

$$14 - (-62) = 76.$$

And this diminution of the number of years prior to Christ's birth by 1 is precisely what is effected, say the astronomers, by the introduction of the year zero.

But here again the astronomers have reckoned without their host. The object which they wish to attain would be reached in quite the same manner, and would be historically more justified in the Dionysian view, if the positive years were decreased by 1, and the reckoning took the form :

$$13 - (-63) = 76.$$

But the argument involves a gross breach of logic. By this method, which operates with whole years, the result would never accord with the actual facts unless the points of time with which the comparison is conducted were situated exactly at corresponding places in the years compared. But in the case of Frederick the Great this is not the fact. If the fractional parts of the year be taken into account, the length of his life will be found to be 74 years and 7 months nearly, which by the accepted rules of computation would be counted as 75 years. If Frederick the Great had been born in the first minute of the year 1712 and had died in the last minute of the year 1786, his life would reckon up 75 years exactly; whereas, if he had been born in the last moment of the year 1712 and had died in the first moment of the year 1786, the length of his life would be 73 years only. In other words, the reckoning with whole years as units may involve an uncertainty of two full years, and it would seem incredible that a scientific rule should ever become established upon so inexact and crude a practice.

The method of computing time with whole years could be employed only if there were no smaller divisions of time than full years. In the case of quantities which increase interruptedly and always by the same finite amount, that is to say in the case of discrete quantities not admitting of subdivision, it is quite proper to select one of these elements as the starting-point and to give to it the number 0; but this procedure would lose all justification whatsoever and would be absolutely unmeaning, if it were applied to a set of quantities which change continuously and which are therefore composed of minor quantities smaller than the element designated zero. Even now in the method of reckoning adopted by

astronomers, errors and contradictions arise whenever months and days are considered instead of whole years; but the embarrassments are still more increased in calculations connected with the year zero. According to Dionysius, we have one starting-point of time only, from which we count both backwards and forwards. If we introduce a year zero, we have two starting-points: (1) the end of this year for the time after the birth of Christ, and (2) the beginning of this year for the time before the birth of Christ. From which one of these points events falling within the year zero itself would have to be reckoned is quite indeterminable; and by this very fact alone the reasons for the introduction of the zero year fall to the ground.

The whole matter of reckoning time is in fact in no wise distinguishable from the reckoning of temperatures with the thermometer. We have no "zero-degree" on the thermometer, but only a zero-point, and alterations of temperature are always determined by the same arithmetical rule, whether the quantities entering into the computation are degrees with positive or degrees with negative signs. In like manner, the number of years which Frederick the Great lived may be determined from the following computation:

$$(1785 \text{ years, } 7 \text{ months, } 17 \text{ days}) - (1711 \text{ years, no months, } 24 \text{ days}) \\ = 74 \text{ years, } 6 \text{ months, and } 23 \text{ days;}$$

and that of Augustus may be determined by the following:

$$(13 \text{ years, } 7 \text{ months, } 19 \text{ days}) - [-(62 \text{ years, } 3 \text{ months, } 7 \text{ days})] \\ = 75 \text{ years, } 10 \text{ months, and } 26 \text{ days.}$$

In *both* instances we reckon with the number of years decreased by 1; that is, with the number of *whole* years involved in the problem, in the minuend as well as the subtrahend. The *signs* prefixed to the number of the years give rise to no difference in the computation.

It remains to notice another inconvenience inevitably associated with our chronology. The selection of an initial point from which time is computed is necessarily arbitrary and artificial. It does not fairly square with the events which have happened *previously* to the zero-point selected. The negative sign of the intervals of time prior to this epoch represents the point of view of a future generation; the people who lived during these "negative periods" naturally counted their years forward, and we have adopted their method of computation to the extent of employing

the same day of the month for the fixing of dates within a negative year. To be logical, we ought to count the years prior to Christ's birth, not from their beginning but from their end, as being nearer to the zero-point of our system. That we do not do so is illogical, but it is quite intelligible. The inconvenience which follows from this fact is very slight, particularly as it can be removed by an easy calculation, and it is certainly not sufficient to justify in the slightest the introduction of a year zero, which would increase and not diminish the contradictions now involved in our practical methods of reckoning time.

NAMES AND NUMBERS.¹

BY PROF. ERNST MACH.

A NAME is an *acoustic attribute*, which I *add* to the other sensory attributes of a thing or complexus of things, and which I *engrave* in my memory. Even in themselves alone, names are important. Of all the attributes of a complexus of things, they are the most invariable. They constitute thus the most convenient representative of that complexus as an entirety, and around them the remaining and more variable attributes cluster in memory as around a nucleus.

But the facility with which these attributes called names permit of being spread and communicated is more important still. Each observer is likely to discover different attributes in a thing; one person will notice this, another will notice that; with the result that they will not necessarily come to an understanding regarding the thing, or for that matter even be able to come to an understanding. But the name, which always remains the same, is imprinted as a *common* attribute in the memories of *all* persons. It is like a label that has been attached to a thing and is known to all persons. But it is not only attached to things, it is also preserved in the memories of men, and leaps forth at the sight of these things, of its own accord.

The importance of names in technical fields has never been a subject of doubt. The possibility of procuring things which are not within our immediate reach, the producing of effects at a distance through a chain of human beings, are attributable to names. The ethical achievements of names are perhaps even more important still. Names particularise individuals; they create personalities. Without names there is neither glory nor disgrace, neither defensible personal rights, nor prosecutable crime. And by the

¹ Translated from the German by T. J. McCormack.

use of written names these marvellous performances have been enhanced to a stupendous degree.

When two persons part company, each soon shrinks for the other to a mere perspective point. Without names it would be almost impossible for the one to find the other. The fact that we know more of some men than of others, that some men mean more to us than others, is owing to names. Without names we should be utter strangers to one another, as are the animals.

Fancy for a moment how I should be obliged to mimic, caricature, and portray a person that I was seeking, in order that some small group of people, who were perfectly familiar with my methods, could assist me in my search. But if I know that the name of the person I am seeking is Jacques Montmartre, that he lives in France, and in addition in Paris, at No. 45 Rue St.-Pierre Fourier, then I am always in a position to find him by means of these names,—names which countless numbers of different individuals associate with the *same* objects, although they may know these objects under entirely different aspects and in greatly varying degree, sometimes themselves *by name only*. I can thoroughly appreciate the marvellous achievement involved in these performances by imagining myself making such a search without a knowledge of names. I should then have to travel from country to country and from city to city, like the people in *The Arabian Nights*, until I found by accident the person whom I was seeking,—which happens only in fairy tales. I should be in the situation of the lost child who could tell no more than that she belonged to the "mother" who "lived in the house."

A name is the product of a convention, reached unconsciously under the favoring influence of accident, by a limited circle of people having common interests, and gradually communicated by that circle to wider groups.

* * *

What are numbers? Numbers are also names. Numbers would never have originated had we possessed the capability of picturing with absolute distinctness to ourselves the members of a set of like objects as *different*. We count where we desire to make a distinction between like things; in doing so, we assign to each of the like things a name, a distinguishing sign. If the distinction to be made between the things is not effected, we have "miscounted." To accomplish our purpose, the signs employed must be better known and must admit more readily of distinction than the things to be designated. Counting, accordingly, begins with the use of the fa-

miliar objects known as fingers, the names of which have in this manner gradually come to be the names of numbers.¹ The association of the fingers with the things is accomplished, without effort or design, in a definite *order*. In this manner, numbers are quite unconsciously transformed into *ordinal* symbols.² As a consequence of this invariable order, and as a consequence of it alone, the last sign associated with the things comes to represent all the previous associations; this last sign is the *number* of the things counted.

If there are not enough fingers to associate with the things, the original series of associations is simply repeated, and the *several* series of associations so obtained are then themselves supplied with ordinal symbols, as before. Our system of numbers becomes in this manner a system of purely *ordinal signs*, which can be extended at pleasure. If the objects counted be made up of like parts, and in each of these parts there be discovered parts which again are alike, and so on, the same principle may be employed for the enumeration of these parts of parts. Our system of ordinal signs, accordingly, admits of indefinite refinement. Numbers are an orderly system of names which admit directly and readily of indefinite extension and refinement.

Where a few objects only are to be designated, and these are readily distinguished from one another by salient attributes, proper names as a rule are preferred; countries, cities, friends, are not numbered. But objects that are numerous and which constitute in any way a system in which the properties of the individual things forming the system constitute a gradation, are always numbered. Thus, numbers and not names are given to the houses of a street, and in regularly laid out cities, also to the streets themselves. Degrees on a thermometer are numbered, and proper names are given to the freezing and boiling points only. The advantage here, in addition to the mnemotechnic feature of the plan, consists in the fact that one can easily discover by the sign of the thing the position which it occupies in the system,—an advantage not appreciated by the inhabitants of small towns, where the houses are unnumbered and where there are consequently no municipal co-ordinates to assist a stranger in finding his way.

The operation of counting may again be applied to the numbers themselves; in this manner, not only is the development of the number-system carried to a point considerably beyond that of

¹ Cantor, *Mathem. Beiträge zum Culturleben der Völker*. Cantor, *Geschichte der Mathematik*. Tylor, *Primitive Culture*. Tylor, *Early History of Mankind*.

² Mach, *Mechanics*, page 486.

its original simplicity, as by the formation of the decimal system of writing and of performing operations with numbers, but the entire science of arithmetic, the entire science of mathematics, takes its being from this application. The perception, for example, that $4 + 3 = 7$, arises from the application of the ordinal signs or numbers of the upper horizontal row of the following diagram, to the numbers of the row which is beneath :

1 2 3 4 5 6 7

1 2 3 4 1 2 3

I conceive the truths of arithmetic to be propositions that have been reached by experience, understanding by experience here inner experience; and I long ago characterised mathematics as a system of economically ordered experiences of counting, made ready for immediate use, and designed to replace direct counting, which is frequently impossible, by operations previously performed, and hence accomplishing a great *saving* of time and trouble.¹ I am here substantially in accord with the views which Helmholtz expressed in 1887.² This is of course not as yet a theory of mathematics, but merely a programme of such a theory. The interesting psychological questions presented here may be seen from the work of E. Schröder³ who was the first to inquire why the *number* of the objects is independent of the order in which they are counted. As Helmholtz remarks,⁴ in any succession of objects that have been counted in a definite order any two adjacent objects may be interchanged, whereby ultimately any order of succession whatever of the objects may be produced without changing the succession of the numbers, or causing either objects or numbers to be dropped. The non-dependence of the sum on the order of the things added follows from this consideration. But this inquiry cannot be pursued farther here.

Although in the first instance counting supplies the necessary means of distinguishing objects which are in themselves difficult to

¹ Comp. "Ueber die ökonomische Natur der physikalischen Forschung," *Almanach der Wiener Akademie*, 1882, p. 167. (Engl. trans. in *Popular Scientific Lectures*, Chicago, 1898, p. 186.) Also, *Mechanik* (1883), p. 458. (Eng. trans., Chicago, 1893, page 486.) Also, *Analyse der Empfindungen*, 1886, p. 165. (Eng. trans., Chicago, 1897, page 178.)

² Helmholtz, "Zählen und Messen," in *Philosophische Aufsätze, Eduard Zeller gewidmet*. Compare especially pp. 17 and 20.

³ *Lehrbuch der Arithmetik und Algebra*. Leipzig, 1873, p. 14. I became acquainted with Schröder's book, which is based upon Grassmann's work, through a quotation in the aforementioned paper of Helmholtz.

⁴ *Loc. cit.*, pp. 30 et seq. Conf. also Kronecker, *loc. cit.*, p. 268.

distinguish, it is nevertheless afterwards applied to objects which, while clearly distinguishable, are yet in some certain respect regarded by us as the same, and so are interchangeable in this respect. The properties with respect to which objects may be considered the same differ greatly and vary almost from mere existence at a given point of space or moment of time to absolute undistinguishability. We count *different* objects as the same *only in so far* as they are the same; dimes, dollars, shillings, sovereigns, francs, marks, and gulden are counted, not as dimes, dollars, shillings, etc., but as coins. Thermometers and induction coils are counted as physical apparatus, or as items of an inventory, but not as thermometers and induction coils.

Objects counted, which are alike in some particular respect, and which may replace one another in this respect, are called units. What is it that is counted, for example, by the number representing a temperature? In the first place it is the divisions of the scale, the real or apparent increments of volume or of pressure of the thermometric substance. *Geometrically* or *dynamically* regarded, the objects here counted may be substituted for one another, indifferently; but with reference to the thermal state these objects are signs or indices merely of that state, and not equivalent, enumerable parts of a *universal* property of the thermal state *itself*.

This may be made very clear by the consideration that the number measuring a potential for example does quantitatively determine a universal property of the potential. If I cause the electric potential of a charged body to sink from 51 to 50 or from 31 to 30, I am able by so doing to raise the charge of any other body having the same capacity one degree, indifferently whether it be from 10 to 11 or from 24 to 25. Different single degrees of potential may be substituted for one another.

A relation of like simplicity does not exist for scales of temperature. A thermometer is raised *approximately* one degree of temperature when some other thermometer of the same capacity is lowered one degree of temperature in some other part of the scale. But this relation is not exact; the deviations vary with the thermometric substance selected for either one or both thermometers, and with the position of the degrees in the scale; the deviations are furthermore individual in character, according to the substance and to the position in the thermometric scale; they are vanishingly small only in the gas scale. We may say that by cooling off a gas thermometer one degree in any part of the scale, any other body may be made to receive always the same alteration of thermal

state. This property might have served as a definition of equal degrees of temperature. Yet it is worthy of remark that this property is not shared by all bodies whatsoever that pass through the course of temperature-changes indicated by the gas thermometer, for the reason that their specific heat is in general dependent upon the temperature. It is no less deserving of mention that this principle was not intentionally embodied in the construction of the temperature-scale, but subsequently proved itself by accident to be substantially fulfilled. The conscious and rational introduction of a scale of temperature having universal validity analogous to the potential scale was first made by Sir William Thomson. The temperature-numbers of the common scale are virtually inventorial numbers of the thermal states.

THE NEW YEAR IN CHINA.¹

BY ARTHUR H. SMITH, D. D.,
(P'ang Chuang, Shantung, China.)

THE very first aspect in which Chinese New Year presents itself, no matter in what part of the world we happen to meet it, is that of noise. All night long there is a bang! bang! bang! of firecrackers large and small, which, like other calamities, "come, not single spies, but in battalions." The root of all this is undoubtedly connected with religion, as in other similar performances all over the world. But though the explosion of gunpowder is the most prominent, it is far from being the most important, act of New Year worship. There is the dispatch of the last year's kitchen-god, generally on the twenty-third of the twelfth moon, and the installation of his successor at the close of the year. On the last evening of the year, there is the family gathering either at the ancestral temple, or should there not be one, in the dwelling-house, for the worship of the tablets of the past few generations of ancestors. In some parts of China ancestral tablets are comparatively rare among the farming and working people, and the place of them as regards the practical worship at New Year's eve, is taken by a large scroll, containing a portion of the family genealogy, which is hung up, and honored with prostrations and the burning of incense. On the morning of the second day of the new first moon, perhaps at other times also, all the males of a suitable age go to the family or clan graveyard, and there make the customary offerings to the spirits of the departed. There has been considerable controversy among foreigners expert in Chinese affairs as to the true value of these various rites from a religious point of view, but there is no doubt on the part of any one that they constitute a most essential ingredient in a Chinese New Year, and that in the present temper of

¹ From *Village Life in China*. A Study in Sociology. Fleming H. Revell Co., Publishers of Evangelical Literature. New York, Chicago, Toronto. 1899.

the Chinese race, a New Year without such rites is both inconceivable and impossible. We do well, therefore, to place Religious Rites prominently in our catalogue.

It requires but a slight acquaintance with the facts, however, to make us aware that while the ceremonies connected with the dead are important, they are soon disposed of once for all, and that they do not form a part of the permanent New Year landscape. It is quite otherwise with the social ceremonies connected with the living. The practice of New Year calls, as found in some Western lands, is a very feeble parody of the Chinese usage. We call on whom we choose to call upon, when we choose to go. The Chinese pays his respects to those to whom he must pay his respects, at the time when it is his duty so to do, and from this duty there is seldom any reprieve. For example, not to press into undue prominence local practices, which vary greatly, it may be the fashion for every one to be up long before daylight. After the family salutations have been concluded, all but the older generation of males set out to make the tour of the village, the representatives of each family entering the yard of every other family, and prostrating themselves to the elders who are at home to receive them. This business goes by priority in the genealogical table, as military and naval officers take rank from the date of their commissions. Early marriages on the part of some members of a collateral branch of a large clan, late marriages on the part of other branches, the adoption of heirs at any point, and other causes, constantly bring it about that the men oldest in years are by no means so in the order of the generation to which they belong. Thus we have the absurd spectacle of a man of seventy posing as a "nephew"—or, if worst comes to worst—as the "grandson" of a mere boy. One often hears a man in middle life complain of the fatigues of the New Year time, as he being of a "late generation," is obliged "to kotow to every child two feet long" whom he may happen to meet, as they are "older" than he, and in consequence of this inversion of "relative duties," the children are fresh as a rose, while the middle-aged man has lame knees for a week or two!

If the first day is devoted to one's native town or village, the succeeding ones are taken to pay calls of ceremony upon one's relatives living in other towns or villages, beginning with the mother's family, and branching into relationships the names of which few foreigners can remember and which most cannot even comprehend. That all this social ceremony is upon the whole a good thing cannot be doubted, for it prevents many alienations, and heals in their

early stages many cases of strained relations. Yet, to us such a formal and monotonous routine would prove insufferable.

To the Chinese, these visits are not only an important part of New Year, presumptively they are in real sense New Year itself. Every visit involves a "square meal," and (from the Chinese point of view) a good time. To omit them, would be not only to deprive oneself of much pleasure, it would be to commit a social crime, which would almost certainly give great offence.

The customs of different parts of the wide empire doubtless vary, but probably there is no part of it in which either dumplings or some similar article are not inseparably associated with New Year's Day, in the same way as plum-pudding with an English Christmas, or roast-turkey and mince pie with a New England Thanksgiving. As compared with Western peoples, the number of Chinese who are not obliged to practice self-denial either in the quantity or the quality of their food, and in both, is small. The diet of the vast mass of the nation is systematically and necessarily abstemious. Even in the case of farmers' families who are well enough off to afford the year round good food in abundance, we do not often see them indulging in such luxury. Or if the males of the elder generation indulge, the women and children of a younger generation are not allowed to do so. Hereditary economy in the item of food is a marked Chinese trait. To "eat good things" is a common phrase denoting the occurrence of a wedding, a funeral, or some occasion upon which "good things" cannot be dispensed with. To eat cakes of ordinary grain on New Year's Day, and not to get any dumplings at all, is proverbially worse than not to have any New Year.

No feast-day in any Western land—the two previously mentioned not excepted—can at all compare with Chinese New Year, as regards powers of traction and attraction. We consider the gathering of families on these special occasions as theoretically desirable, and as practically useful. But we have this fatal disadvantage; our families divide and disperse, often to the ends of the earth, and a new home is soon made. Whole families cannot be transported long distances, especially at inclement seasons of the year, even if average dwellings would hold them all.

But in China, the family is already at home. It is only some of its male members who are absent, and they return to their ancestral abode, with the infallible instinct of the wild fowl to their southern haunts. If vast distances should make this physically impossible—as is the case with the countless Shan-hsi men scattered over the empire doing business as bankers, pawn-brokers, etc., or as happens with many from the northern provinces who go "outside the Great Wall,"—still the plan is to go home, perhaps one year in three, and the time selected is always at the close of the year.

A cat in a strange garret, a bird with a broken wing, a fish out of water, are not more restless and unhappy than the average Chinese who cannot go home at New Year time.

THE OX AND THE ASS IN ILLUSTRATIONS
OF THE NATIVITY.

BY THE EDITOR.

THE December number of *The Open Court* contains an article on the Nativity of Christ as contrasted with other Nativity stories, especially those of Mithras and Dionysus. We had occasion to refer to the presence of the ox and the ass in Christian pictures and legends which begin to make their appearance in the fourth century. In speaking of similar modes of religious art, we omitted to mention a remarkable illustration which ought not to be



PROMETHEUS FORMING HUMAN BEINGS.¹

overlooked in this connexion, because it may throw light on the traditions and help to decide claims of priority.

It is a Prometheus sarcophagus reproduced by Visconti and representing the creation of mankind by the great fore-thinker.⁷

¹ From Visconti, *Mus. Pio. Clem.*, IV., 34, reproduced from Thomas Taylor's *Eleusinian Mysteries*, p. 27. The ass and the steer, the sacred animals of Dionysus are represented as present while Prometheus forms human beings. The figure of a man lies on the ground and a woman is just being chiselled. Mercury brings Psyche, the soul, with which the bodies shall be animated. The three fates, Clotho, Lachesis, Atropos, assist, and a lamb crouches by the side of Prometheus.

² Prometheus means literally *forethinker*, that is, the man who thinks ahead, looking to the future and making his designs accordingly. He is contrasted with Epimetheus, the man of after-thought, who is possessed of the famous aldermanic wisdom of those township councillors who

Judging from the pure style of the composition, the relief dates back to the best times of classic art; but its most remarkable feature consists in the traces of the Bacchic cult, which like the Orphic and Eleusinian mysteries served during the last two or three centuries before the Christian era to satisfy man's aspiration for immortality. Dionysus, the liberty-bringing God, the twice born (so called because Semele bore him, and Zeus too), the eternally resurrected, is worshipped as the God of Nature, annually resurrected in spring, and typifies the conquest of mind over matter as it reveals itself in ecstatic states, both in intoxication and in the visions of prophets.

Dionysus is not himself pictured on the present bas-relief but is represented by his animals only, the steer and the ass. These two animals, which are unmistakable symbols of Dionysus worship, are standing right above the statue which is just being completed under the chisel of Prometheus. Mercury, the herald of the gods, brings down Psyche, the soul, a gift Zeus sends as his contribution to the formation of mankind, and the three Fates, Clotho, Lachesis



DIONYSUS ON THE ASS.

Antique terra-cotta of Attica, ancient style.¹

and Atropos, are ready to take the destiny of the newly-created human beings into their hands. Clotho is the spinster that starts the thread, Lachesis receives and unravels it, while Atropos, the inevitable doom of every mortal, cuts it off.

The donkey is the animal on which Dionysus makes his triumphal entry. We reproduce the picture of an archaic terra-cotta group (crude but very ancient) which shows the liberty-bringing god with a wine cup in his right hand and the thyrsus in his left,

know how they should have spoken and voted when they descend the stairs of the town hall hence the term "staircase wit," or, as the Germans call it, *Treppenwitzkeit*.

¹ After Clarac, Pl. 675, 1600 A., cf. Baumeister, p. 433.

supported by Silenus or a satyr. There is a certain humor in the group, as the god is represented as being under the influence of his spirit-freeing drink.

The steer of Dionysus, which corresponds to the Egyptian Apis and to the primal bull of the Zoroastrian religion, represents the fertilising power of nature. He makes his appearance in spring, and decks the rejuvenated world with fresh verdure and flowers. Hence he is said to carry on his horns the three graces. The constellation Taurus to which the Pleiades belong was dedicated to him. We here reproduce a fine gem, one of the finest extant, on which the Dionysian steer carries on his horns the three graces and shows on his back the seven stars of the Pleiades.

Dionysus was the son of Zeus and Semele. Juno, jealous of her rival, induced her to request Zeus to show himself in his divinity,



THE DIONYSIAN STEER.¹ (Antique Cameo.)

which led to her destruction. The God, on account of his promise could not help appearing to Semele, but he took pity on the child that was not yet born and when the mother in the presence of his heavenly thunderbolts died, he hid his little son in his own thigh until it grew strong enough to be handed over to the nymphs of the Nysene grotto for nursing. This scene in the infancy of Dionysus is represented in a beautiful relief on an antique water-urn.

Our illustration represents the divine child as carried down by Mercury to a woman who represents all the nymphs of the Nysa grotto that took charge of the child. To the right we see three figures who are commonly supposed to be: first, Silenus, second, Mystis according to Welcker, and Telete according to Gerhard; and finally, Opora, or as Wieseler interprets it, Oinanthe; Silenus being the educator of Dionysus, Mystis the priestess of the Dionysian mysteries; Telete (i. e., initiation into the mystery) would practically mean the same and Opora or Oinanthe are representations,

¹ After Köhler *Ges. Schr.*, Vol. V., Plate 3, cf. Baumeister's *Denkmäler*, I., p. 377.

the former of the grape juice, the latter of the vine. While the group on the right hand is dignified and restful, the three corresponding figures on the left hand are full of Bacchantic enthusiasm. One Satyr plays the double flute and another moving in a graceful dancing step carries the thyrsus. Between them is a Bacchante beating the tympanum. The scene encircles a bell-shaped marble vase, and bears the inscription: "Salpion of Athens made it." The vessel, which belongs to the best times of the revival of the Attic school (compare Brunn, *Künstlergeschichte*, Vol. I, p. 599), served for a long time as a baptismal font in a church at Gaeta, and is now preserved in the museum of Naples.¹



MARBLE URN IN THE MUSEUM AT NAPLES.

The birth of Dionysus was celebrated in Greece with great rejoicings and formed an essential part in the Bacchic mysteries. The nativity of the God who was called the saviour, the rescuer and liberator, the bringer of joy, is frequently represented in Greek art and must have been celebrated all over Greece, especially in the rural districts. The cradle of the child is always a winnowing fan (called *vanus* in Latin and *liknon* (λίκνον) in Greek) which is sacred to the God, and his



THE NATIVITY OF DIONYSUS ON A MARBLE URN IN THE MUSEUM AT NAPLES.²

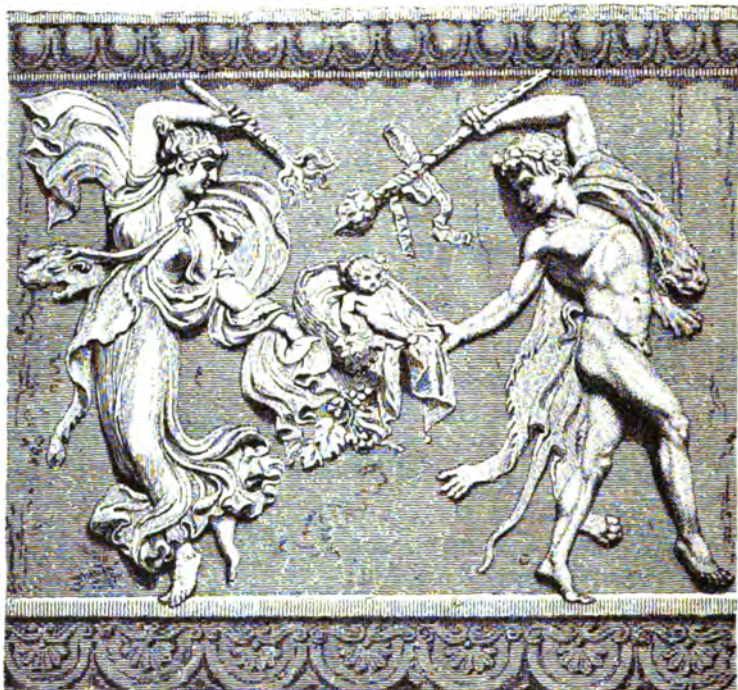
worshippers carried it, filled with sacred utensils or fruit, on their heads at his festivals. Liknites, i. e., "he who lay in the winnowing fan" is quite a common name for Dionysus.

The presence of the ox and the ass at the birth of Christ is not mentioned in the New Testament and may very well have originated under the influence of the Bacchic mysteries the recollection

¹ The illustration is reproduced from Baumeister, Vol. I., p. 438.

² After *Mss. Barb.*, I., 49, from Baumeister, Plate I., p. 448.

of which like those of the legends of Mithras, the story of the magi, the slaughter of the innocents, etc., was merged into the religious



LIKNITES.

The Dionysus child in the liknos or winnowing basket. Antique relief in terra-cotta. British Museum. Reproduced from Baumeister, Plate XVIII. After Combe's *Terra-Cottas*.

notions of the Christians as to the circumstances that must attend the nativity of a saviour.

THE BREADTH OF BUDDHISM.

BY TEITARO SUZUKI.

BUDDHISM is more intellectual, though on this account by no means less religious, than any other religion, and faith and knowledge are intimately interrelated and equally emphasised. Observe how Buddha exercised the ten virtues (Pâramitâs) in his previous lives as well as in his last existence, to attain perfect enlightenment; observe how he discussed all those great philosophical problems with Brahman sages, which have been puzzling mankind ever since the dawn of intellectual thought. The intellectuality of Buddhism has contributed much to the peculiar fascination that it exercises on speculative minds.

One of the practical results of the philosophical tendency in Buddhism is the predominance of a spirit of tolerance towards its opponents. It is the pride and glory of the followers of Çâkyamuni that its development and propagation among one third of the world's population took place without bloodshed, burning at the stake, or any other of the cruel methods which were committed by other religions in the name of God and from the sheer love and zeal of saving souls. Whenever it was necessary to overcome opposition, Buddhism used the peaceful method of persuasion by argument. Tradition tells us how brilliantly Âryadeva, the eminent and talented disciple of Nâgârjuna, achieved a victory over thousands of tîrthakas, simply by his superior dialectics and ingenious logic.

Buddhism thus calmly and patiently found its way from the East to the West, but never assumed a hostile attitude towards those religious and ethical systems which were already established. It adapted itself to new conditions and assimilated at the same time other views, so that the people could understand the new truths without experiencing any feeling of repugnance. Every nation has its peculiar needs, inclinations, and traditions which, however superstitious they may appear at first glance, contain some germs of

truth and should for that reason be respected. Buddhism always endeavors to point out those germs of truth, to nourish them, and to give them a new and better interpretation. Being more speculative than any other vehicle of salvation, Buddhism is less aggressive and less impassioned, and does not decry others as false, infidel, perfidious, and idol-worshipping, or apply other offensive epithets which are indifferently used by those pious propagandists who I fear love God too much and their fellow beings too little.

So when Buddhism was introduced into China officially (67 A. D.), it did not try either to suppress the mystic Taoism or the utilitarian Confucianism, although the transplantation of Buddhism into a climate profusely impregnated with practicality and optimistic thought, must have at first excited a great commotion in the intellectual field. What a contrast between the highly abstract philosophy of the Mahâyâna and the positivistic ethical teaching of Confucius! Nevertheless Buddhists worked on, steadily and peacefully, side by side with the followers of Kun Fu Tze and Lao Tze, till Buddhism took root, and, starting a fresh development there, gave such a great impetus to Confucianism as to produce in it some deep thinkers, among whom the most noted were Luh Siang San, Chu Tze, and Wan Yang Ming.

In Japan we have a singular instance which characteristically illustrates the rather over-tolerant spirit of Buddhism, if such a term be allowable. The Japanese are a people in whose minds the idea of ancestor-worship is deeply imbued, partly I think because they were islanders secluded from intercourse with the world, and partly because there was not much intermixture of races in Japan. When a statue of Buddha and a few Sûtras were first presented to the Japanese court by a Korean king 552 A. D., some of the ministers declared that they had no need of worshipping a foreign god as they had their own divine ancestors. Buddhists, however, did not disparage the sacred traditions of the Japanese by proclaiming that they revered false gods; but at once made a practical application of one of their fundamental doctrines, to wit, the Jâtaka theory. All Japanese ancestor-gods were then transformed into Bodhisatvas, or Avatâras (=incarnations) of the primordial Buddha, who, divining the natural inclinations of the nation, assumed the forms of their gods. And thus Buddhism and Shintoism, which strictly speaking is not a religion, were reconciled, and cherished no enmity towards each other. How ingeniously they interpreted Shinto doctrines! And in doing this they were perfectly consistent and sincere.

Enlightened Buddhists in Japan are still of the same opinion when they say that they feel friendly towards Christianity, for Christ, its founder, is an Avatâra (=incarnation) of the Dharmakâya, just as is Buddha himself. Independently of the religious significance of this attitude, it seems to me that in making such a statement they are uttering what is probably the truth; namely, that Christ himself, or at least early Christianity, was influenced quite a little by Buddhism, whose missionary activities are to be found in the very cradle of Christianity and its vicinity, long before the establishment of the latter there. Granting that differentiation is a necessary product of different circumstances, we are confronted with many similarities, nay, I am tempted to say, we find almost the same things in Buddhism and Christianity regarding dogma and ritual, and considering that the Japanese Sukhâvatî sects and Chinese Tien Tai sect, Dhyâna sect, and others so very different from the Buddhist churches of Siam, Ceylon, and Burma, are all comprised under the general name of Buddhism; I then feel strongly inclined to assert that Christianity with all its Jewish, Greek, and Roman traditions may be a Buddhism so metamorphosed as to suit itself to the soil and climate of transplantation. The differences between the Sukhâvatî (Jôdô) and the Dhyâna (Jen) sects are greater than between the Sukhâvatî and the Protestant Christians or the Tien Tai and the Roman Catholics. Whether or not a future discovery of some historical facts concerning this point confirms this view, it matters little; theoretically it is absolutely true that Christianity and Buddhism, each in its own way, sprang out of the unfathomable depth of the human heart which is everywhere the same. Take away their prejudices, intellectual as well as historical, and we have the essence of religion in all its purity and magnificence.

What makes a religion assume false appearances and exposes it to the gross miscomprehension of unsympathetic critics, is its local coloring and the popular superstitions that are so easily mixed with its purer doctrines. Buddhism as a faith for the masses has suffered this fate. While intellectual minds earnestly study it in all its essentials and find satisfaction therein, uneducated people and ignorant priests busily occupy themselves in heaping up superstitions. But outsiders should not judge Buddhism from these excrescences, and when they discover superstitious practices should not forget the scientific spirit and ethical grandeur of pure Buddhism.

MISCELLANEOUS.

THE NEW YEAR.

I saw the gates of the Celestial Land
Uplifted, and the everlasting doors
Opened before a Throne.

So marvellous
In grandeur and in beauty was the scene,
That human language hath no words in which
Its glory may be told.

Before the Throne
The Old Year stood, with grave and solemn mien
Waiting the judgment ; and beside him knelt
The New Year, in the attitude of prayer.
And, while I stood and wondered, lo ! he spoke ;
And the broad streams of splendor from the throne
Bore to my eager ear his earnest words
Of supplication. Thus the New Year prayed :

" Vouchsafe, O King of kings, and Lord of lords,
To give me wisdom, strength and fortitude
To do with all fidelity the work
To which Thou callest me, whate'er it be ;
Whether of joy or sorrow, peace or pain ;
Whether in tempest, and in wilderness,
Or in the calm, and in the smiling field.

" If Thou shouldst deem it best to try my soul
With fire, or sword, or other dreadful thing,
Oh ! strengthen me to bear it patiently,
And bravely fight the battles of Thy truth,
And give me safe deliverance from all
The perils into which my pathway leads.

" Or if Thou wilt not order that I bear
Any heroic burden, under which
I might achieve a martyr's sacred fame ;
But that my troubles shall be little things

Too small for strength or courage—such as fret
 And chafe the spirit with temptations sore—
 Oh ! give me patience, cheerfulness, and hope,
 To bear and overcome them, though there be
 No outward glory in my victory,
 Nor aught to lift me up in human eyes.

“And oh ! my King, grant that, throughout the world,
 My reign may be distinguished by increase
 Of peace among the nations, and good-will
 Among the men of all communities.
 Grant that there be no war to dye the seas
 With human blood, or desolate the land
 With carnage. But may ev’ry people beat
 Their swords to ploughshares, spears to pruning-hooks,—
 And every field, by war made desolate,
 Be sweet with bloom, and rich with growing grain ;
 And every spot where ruined houses lie,
 Ring with the laugh of children, and the song
 Of maiden, waiting lover’s step and voice.

“And oh ! my Father, most abundantly
 Give me the disposition and the means
 To help the poor and the unfortunate ;—
 To aid them, not alone by kindly words,
 But with relief of urgent present needs,
 And means and opportunities to rise
 To better state, in which they may provide
 By their own work for their necessities.

“And grant me, Lord, most potent influence
 To heal domestic discord everywhere ;
 To lessen envy, pride, and selfishness ;
 To check extravagance and indolence ;
 To turn estranged affection to its own ;
 To bring the erring back to virtue’s ways ;
 To foster love, and truth, and industry ;
 To brighten all the blessed charms of home ;
 To warm all hearts with holy charity ;
 To make the young obedient and pure ;
 To make the old benevolent and wise.

“And, gracious Governor of Nations, grant
 That all who make, expound, or execute
 The laws of human government, may be
 Inspired by Thee with purpose to obey
 The righteous mandate of the golden rule ;
 To serve the truth, by doing what is good ;
 To seek their fame in the prosperity,
 And happiness and glory of the lands
 O’er which, by Thy permission, they preside.

"And above all, O Father, King, and Lord !
 Grant me to lead Thy creatures to Thy throne ;
 To fill their hearts with Thy celestial love ;
 To fill their minds with Thy celestial truth ;
 To fill their lives with Thy celestial power ;
 And thus, with Thine own glory, fill the world."

I saw the radiant face of the New Year
 Uplifted to the Lord, and heard him say,
 "Amen! O King of kings, O Lord of lords!"

I heard no more his earnest words of prayer ;
 I saw no more the vision of the Throne ;
 But from the world, upswelling like the tone
 Of a most grand and solemn anthem, came
 The echo of the New Year's prayer: AMEN! AMEN!

My grateful heart took up the sweet refrain ;
 My grateful voice, the blessed anthem caught ;
 And my exultant soul re-echoed back
 The closing words of the angelic prayer :
 AMEN! O FATHER, KING, AND LORD, AMEN!

CHARLES CARROLL BONNEY.

"TANTE FRITZCHEN."

The present number of *The Open Court* contains a thoughtful sketch entitled "Tante Fritzchen," which is not only interesting to the psychologist as delineating an original character, but also to the philosopher and theologian as discussing the problem of immortality. The heroine of the sketch has a definite idea on the subject, and it is developed with great lucidity by the author, Hans Hoffmann, one of the rising novelists of Germany. The solution appears rather negative, and seems to be a flat denial of immortality, but a closer inspection will prove that it only criticises a wrong conception of the nature of the continuance of after-life,—a conception which we may fairly grant is very common throughout the world.

We may assume that our own views are known to the readers of *The Open Court*, and may abstain here from restating them ; but we would say that answers and criticisms of Dr. Hoffmann's exposition of the problem will be welcome, on the condition that they be brief and to the point, and they must state the positive aspect of immortality, setting forth what will survive after death and in which way.

Hans Hoffmann, the author of "Tante Fritzchen," was born in Stettin in 1848 ; he attended the Gymnasium in his native city, studied classical philology and Germanistics in Bonn, Berlin, and Halle, in addition making a specialty of literature and the history of literature. He took his degree at Halle in 1871, and was appointed teacher in his native city. He interrupted his career for a journey through Italy, Greece, and Turkey, and held positions as a teacher successively at the Gymnasias at Stolp, Dantzig, and Berlin. He gave up his profession as an educator for the more congenial work of an author and editor. He published in 1884 the *Deutsche Illustrirte Zeitung*. His present residence is Wernigerode, in the Harz Mountains.

COL. ROBERT INGERSOLL'S POSTHUMOUS POEM.

Colonel Robert Ingersoll wrote, during the last months of his life, a prose poem inspired by our war with Spain. Recent events had awakened in him memories of the War of Secession, and prompted him to jot down some sixty lines of that poetry without rhymes for which the great agnostic orator has justly become famous. The poem does not contain a word alluding to his favorite topic, religion, and almost carefully avoids giving offence to those who would differ from him. It has been illustrated by H. A. Ogden in the style of Prang's calendars and Christmas greetings, and is printed in highly artistic style.

As a specimen showing the beauty of Col. Ingersoll's thoughts, we quote the last paragraph which sounds like part of a Memorial Day speech :

"These heroes are dead. They died for liberty—they died for us. They are at rest. They sleep in the land they made free, under the flag they rendered stainless, under the solemn pines, the sad hemlocks, the tearful willows, and the embracing vines. They sleep beneath the shadow of the clouds, careless alike of sunshine or of storm, each in the windowless palace of rest. Earth may run red with other wars—they are at peace. In the midst of battle, in the roar of conflict, they found the serenity of death. I have one sentiment for soldiers living and dead: Cheers for the living, tears for the dead." (New York: C. P. Farrell. Price, \$1.00.)

BOOK REVIEWS AND NOTES.

VILLAGE LIFE IN CHINA. A Study in Sociology. By *Arthur H. Smith, D. D.* With Illustrations. New York, Chicago, Toronto: Fleming H. Revell Company. 1899. Pages, 360. Price, \$2.00.

Dr. Arthur H. Smith, President of the American Board of Missions in China, is a long-time resident of the Celestial Empire. His knowledge of the Chinese extends to their literature and general culture as well as to the life of the people in both palace and hut. What he says about China is based upon his own actual experience and can be relied upon. His book will prove of interest, but will do more: it is a valuable contribution toward the solution of the great Chinese problem which is no easy task.

Dr. Smith selects as his subject, village life, and a knowledge of the village life is for all practical purposes the most needed. "The Chinese village is the empire in small, and when that has been surveyed, we shall be in a better condition to suggest a remedy for whatever needs amendment. It cannot be too often reiterated that the variety in unity in China is such, that affirmations should always be qualified with the implied limitation that they are true somewhere, although few of them may hold good everywhere. On the other hand, the unity in variety is such that a really typical Chinese fact, although of restricted occurrence, may not on that account be the less valuable."

While the author is fully aware of the shortcomings of Chinese civilisation and institutions, he appreciates the character of the people as it shows itself in their private and public life. He confesses that he "has come to feel a profound respect for the numerous admirable qualities of the Chinese, and to entertain for many of them a high personal esteem. An unexampled past lies behind this great race, and before it there may lie a wonderful future."

The difficulty consists in the transition from the present conditions to a new

one which will allow the Chinese to assimilate Western influence and not to break down under its weight. The latter would be a misfortune for both the Chinese and the Western invaders. But if a general ruin could be warded off by wise and cautious reforms, the Chinese might take a place among the nations of the world that would be worthy of their past." "Ere that can be realised, however, there are many disabilities which must be removed. The longer one is acquainted with China, the more deeply is the necessity felt. Commerce, diplomacy, extension of political relations, and the growing contact with Occidental civilisation have all combined, proved totally inadequate to accomplish any such reformation as China needs."

The book describes the construction of the Chinese village, the roads of the country, ferries, wells, shops, theatres, schools, religious observances, co-operative as well as sectarian societies, weddings, funerals, festivals, its government through the village head-man, family life, and finally proposes the question "What Can Christianity Do for China?" He says: "Christianity will revolutionise the Chinese system of education. Such a revolution might indeed take place without reference to Christianity. The moral forces which have made China what it is, are now to a large extent inert. To introduce new intellectual life with no corresponding moral restraints, might prove far more a curse than a blessing, as it has been in the other Oriental lands.

"Christianity will make no compromise with polygamy and concubinage, but will cut the tap-root of a upas-tree which now poisons Chinese society wherever its branches spread.

"The theory of the Chinese social organisation is admirable and beautiful, but the principles which underlie it are utterly inert. When Christianity shows the Chinese for the first time what these traditional principles really mean, the theories will begin to take shape as possibilities, even as the bones of Ezekiel's vision took on flesh. Then it will more clearly appear how great an advantage the Chinese race has enjoyed in its lofty moral code."

It goes without saying that Mr. Smith is too optimistic in his hopes as to what Christianity will do for China. The vices of the Chinese are common all over the world and are by no means absent in Christian lands. The introduction of Christianity in China would not so much mean a change in morality as a change in ritual. For genuine Christians are as rare in Christian countries as they are in pagan lands. That Christianity is superior to the superstition of the Chinese popular beliefs cannot be doubted and it would be a blessing for the people if a sober, Protestant Christianity could be introduced in China without antagonising the national traditions and the customs of Chinese family life which in their bulk are excellent. Protestant Christianity is the Christianity of the Teutonic races, the Germans, the Dutch, the Saxons, the Norse; the problem in the present case is whether or not Christianity can adapt itself to the conditions of the national character of the Chinese, and if it can it will produce a typically Chinese Christianity. It seems to me that the missionary problem consists in discovering a scheme which would so adapt the form of Christianity as to make it as thoroughly Chinese as Protestantism is Teutonic.

The book is illustrated with fifteen reproductions of photographs which will assist the reader's imagination in forming a correct notion of the Chinese village life. We reproduce in the present number a few pages from the chapter "New Year in Chinese Villages," which happens to be in season and will serve as a good sample of the contents of Dr. Smith's book.

F. C.

WALT WHITMAN. Two Addresses by *William Mackintire Salter*. Philadelphia: S. Burns Weston. 1899. Pages, 46. Price, 25 cents.

Walt Whitman has many enthusiastic admirers and as many severe critics, and the reviewer must confess that he belongs to neither class. That there must be something in Walt Whitman appears from the fact that one of the keenest thinkers, a scientist and mathematician, Prof. W. Kingdon Clifford, speaks of him with great respect and trusts that he will be better appreciated in the future. Most of the admirers of Walt Whitman belong to the class of eccentrics whose indorsement of a cause is not always a recommendation, and therefore we hail the publication of this little tract which comes from the pen of a calm and judicious sympathiser. If any one Mr. Salter, with his impassionate laudation of the natural nobility of the poet of Long Island, would be able to change the indifference of our attitude. The reviewer cannot say that Mr. Salter succeeded in this, but the task of perusing these two addresses was an actual pleasure; so skilfully is the subject presented and so neatly is the wreath woven which he places on the head of this remarkable innovator in the realm of song.

The reviewer's objection to Walt Whitman is not to his innovations, not to his lack of verse and rhyme, not to his repudiation of rule and discipline, not even to the expression of immoral *penchants* (for greater men than he have written far more immoral poems and are guilty of worse breaches of etiquette); our objection is his lack of poetical strength and genuine sentiment. Long strings of enumerations are not poetry; the mentioning of all the states of the Union or of all the limbs of the body is the task of text-books of geography and anatomy, but not of poetry. We wonder how anybody has the patience to read them through. The botanist will find instructive lessons in the story of a blade of grass, but the gardener will not wind it into garlands for a bride. Walt Whitman's poems possess to us a great psychological interest, but we cannot discover in them any beauty, and that in spite of our sympathy with the poet's scorn for traditional rules, simply on the ground that the mass of his lines are mere talk, sometimes pleasant, sometimes dreamy, sometimes thoughtful, and sometimes shallow. Take, for instance, a passage of which Mr. Salter says, "How simple and truly human!" Walt Whitman says:

"Stranger, if you passing meet me and desire to speak to me, why should you not speak to me? And why should I not speak to you?"

Surely there is no objection to a conversation between strangers. Walt Whitman's sentiment is quite natural, but it seems to me that the thought is trivial and not worth incorporating in a poem.

As to the questionable passages of Walt Whitman's poetry, our opinion deviates from that of Mr. Salter. He passes them by without either approval or excuse, and proposes to leave them alone. Quoting the lines in which the passage occurs, "I am for those who believe in loose delights," Mr. Salter adds the following comments:

"The simple fact is that it is not necessary to admire the passages here in question, it is not necessary to defend or justify or even to excuse them—I mean on Whitman's own theory of the matter; it is no more necessary to do so than to defend or justify the moods or actions of which they are the copies. If a man says he *speaks simply as nature prompts*—using nature to mean any impulse within him—then it is a matter of accident whether what he says is worthy or unworthy; we are few of us without impulses, that if they were left unruled, would not make us beasts; and if Whitman sings the low sometimes as well as the high, we can

simply so far leave him out of account, pass him by, forget him, remembering thankfully at the same time that he gives us so much else, so much more, that uplifts the soul, and is of permanent value to man."

The questionable passages of Walt Whitman, in our opinion, deserve full attention and close study. We will not quarrel with Mr. Salter as to the advisability of setting up a poet as a great man whose thoughts are at the mercy of circumstances, as "he speaks simply as nature prompts," so as to make it "a matter of accident whether what he says is worthy or unworthy;" but we would call attention to the fact that novels which idealise, not free love, but prostitution, and whose heroines recruit themselves from the Quartier Latin of Paris or similar places can always count on a tremendous success and will command great sales. The indignant moralist who points out the lack of decency helps to advertise the book by his wild criticism. Such productions sink soon into oblivion, but their authors attain fame and their publishers earn good profits.

We think that neither purity of morals nor naturalness makes a poet great; to say it bluntly, impropriety cannot detract from him, if he be great. The nervousness, however, with which questions of sexual morality are discussed only proves how little as yet they have been settled! We do not propose to enter into the subject now; be it sufficient to point out what seems to us a fact that Walt Whitman's fame and his success as a poet are closely connected with the stir which will always be unfailingly produced by any free discussion of this much mooted problem.

P. C.

SAMMLUNG GÖSCHEN. KLEINE MATHEMATISCHE BIBLIOTHEK: Nos. 88, 97, 99, and 102. Leipsic: G. J. Göschen, Johannissgasse 6, 1. 1899. Price, 80 Pfennigs each.

Four new volumes have appeared in the miniature mathematical series of the *Sammlung Göschen*. The first is on *Stereometry, or Solid Geometry*, by Dr. Glaser, of Stuttgart, containing 126 pages and 44 figures, and divided into three parts devoted respectively to the consideration, (1) of points, lines, and planes in space, (2) surfaces and solids, and (3) the mensuration of surfaces and solids. The examples are more numerous than in the other text-books of the series, and much attention has been paid to the practical applications of the theorems of solid geometry, which from its importance in the technical sciences is not as thoroughly studied in our schools as it should be.

The second volume is a brief treatise on *Geodesy*, by Dr. C. Reinhardt, Professor in Bonn, containing 179 pages, with 66 illustrations. This little book is intended as an introduction to the main problems involved in the measurement of the earth's surface and in ordinary surveying. The subject is a very interesting one, and is concisely and competently treated. There are few branches of applied mathematics, not excluding astronomy, that may lay claim to more serious consideration on the part of the general public, or which present a greater variety of attractive problems; and yet despite the fact that international research in geodesy is better organised and more comprehensive than that in any other science, this study is still but slightly cultivated by general students. Dr. Reinhardt's little book is eminently fitted for giving the reader who is acquainted with elementary trigonometry an insight into the historical development of this science, and also a survey of the main methods and instruments by which that development has been accomplished.

The third work is a treatise on *Plane and Spherical Trigonometry*, by Dr.

Gerhard Hessenberg, of Charlottenburg. Within the brief compass of 165 pages the author has clearly and connectedly developed the main fundamental propositions and formulæ of elementary trigonometry, and upon the whole furnished an excellent little manual of the subject. The solution of triangles has been made to precede the explanation of the theorems for the addition and division of angles and the simplest practical applications of trigonometry are thus made apparent to the student from the start. "Polygonometry" and "Tetragonometry" are also briefly treated in connexion with examples which are quite characteristic and general in form. In the case of all the theorems, one or two examples have been carefully worked out, and a brief collection of exercises added in an appendix. Another noteworthy feature of the book is the emphasis which is laid upon general points of view; trigonometry is seen to emerge naturally from the mensurational formulæ of plane geometry, and the analogies existing between plane and spherical trigonometry are also well brought out. The figures, like those of Dr. Mahler's geometry in the same series, are in two colors. They are 69 in number.

The fourth volume is the conclusion of the second part of the treatise on *Higher Analysis*, by Dr. Friedrich Junker, Professor in Ulm, and treats of the *Integral Calculus*. (205 pages, 87 figures.) The treatment is quite similar to the little treatise on the *Differential Calculus*, by Dr. Junker. It is very brief, and contains no exercises. It is extremely convenient, however, as a manual of reference for the main developments and for illustrative examples of a simple type. It treats of: (1) Integration of Simple Differentials, (2) Integration of Rational Differentials, (3) Integration of Irrational Differentials, (4) Integration of Transcendental Differentials, (5) Definite Integrals, (6) Applications of the Integral Calculus to Plane Geometry, (7) Applications of the Integral Calculus to Solid Geometry, (8) Applications of the Integral Calculus to Statics, (9) Double Integrals and their Applications, (10) Ordinary Differential Equations.

These volumes are sold at the extremely low price of eighty pfennigs each and may be obtained in America, from any foreign book-seller, for twenty-five or thirty cents. The series as a whole embraces every department of science and literature, and students learning German can procure from it brief German textbooks on their particular specialties and thus make pleasant progress in two or more branches at once.

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L'AVENIR DE LA PHILOSOPHIE. Esquisse d'une synthèse des connaissances fondée sur l'histoire. By *Henri Berr*. Paris: Librairie Hachette et Cie., 79 Boulevard Saint-Germain. 1899. Pages, viii, 511.

It is seldom that one meets with a work in which the author's principles and purposes are stated with the same candor and lucidity as in *The Future of Philosophy* of Dr. Henri Berr, Professor in the Lycée Henri IV. "It is a book written in faith," he says, "and it is written of Faith. It is less a book than a deed, a fragment of life. . . . It has always seemed to me that absolute sincerity, that candor which should be the very law of thought, could do much to offset the weakness of any book. . . . Yet, I do not hesitate to promise more than sincerity."

M. Berr is not confident of possessing all the truth. Further he aspires not to originality of ideas, but to breadth and exactness of view, and is ambitious of comprehending rather than of innovating. To him, philosophy has been cultivated too much in the dark and in mystery. Why should the last word of life be an incomprehensible thing, save to the elect few? The effort towards truth will in time unfaillingly be an effort for clearness. Philosophy is not above life nor outside of

life; nothing could be more important to life. "Its study," says Descartes, "is more necessary to regulate our conduct than is the use of our eyes to guide our footsteps." Kant, too, who was himself so obscure, predicted that it would become the patrimony of all.

To contribute in a modest but forceful way to the realisation of these dreams is the object of M. Berr's book. He would base the applications of philosophy to practice upon a profound religious conviction. "I have gradually felt awakening in me a powerful and active faith,—a faith which is not vague and obscure but a faith which has been rendered precise and illuminated by thought. I have earnestly longed to be able to say, and I think that I can say: *Credo quia lucidum.*"

M. Berr, then, reviews some of the various methods which have been propounded for reaching the truth and examines in broad outlines the history of modern philosophy. As the result of his investigations, he finds that philosophy is constantly progressing through the elimination of untenable hypotheses, and by the amassing of the proper materials for a definitive solution. The instrument for the resolution of philosophical problems, the active method for the establishing of truth, is *science*. From a profound study of existing positive knowledge, that is to say of subjective and objective science so called, and of their relations, we shall be able to establish precisely the value of the monistic conceptions, to weigh the existing pretensions of dogmatism, and to determine the measure of existing ignorance as well as the means of vanquishing it.

The result of the collective thought of the ages has been a passage from dogmatism to scepticism, and from scepticism, by a still further dogmatic effort, it has advanced to *monism*, the affirmation of unity, the search for unity, and the establishment of a precise method for estimating the value and functions of unifying conceptions. Monism is the basis of science, and all science demonstrates and completes it, as well as defines its value. All positive knowledge is resolved into psychology and objective science.

Such are some of the many results of M. Berr's examination of the history of philosophy. As to the further developments of his book, we can only mention his remarks upon the main problem of psychology, namely, as to the nature of the ego, and also those upon the future of religion.

It is correct, he maintains, to assert with the empiricists that the ego is not "given" to itself, and exists for itself only in a succession of phenomena. It is right to say with the critical philosophers that the only unity which is known of the ego is that of a law imposed upon phenomena, and which binds them together. It is also right to say with the psychologists that this law is itself a reality. We do not *know* that reality in the common acceptance of the word, but we *are* that reality. The reality is the foundation of the law, the law expresses the reality. Further, it is incorrect to say: "That is *my* thought"; we must say, "That is what time has thought in me."

The main outcome of the author's thought is the enunciation of a *synthesis* of the collective and growing knowledge of the ages as the ideal in which are merged all science and all belief. This crowning Synthesis, this great collective Synthetic Science, presupposes and demonstrates in all existence that unity and harmony which is at the heart of all things, and which either is or is in making. In it religion is absorbed; the reign of the Synthesis is the religious blossoming and fruition of humanity. As the totality of all acquired knowledge, of all social and scientific activity, this Synthesis reproduces the elements of religion; it destroys religion only to restore it. Science is the foundation of ethics. The Divine disappears only

to reappear as Unity conceived in thought and desired by the will. Faith is no longer based upon an illusion, but is the unconquerable affirmation of the Unity of all existence, which is the very heart of religion. "To act is to believe and to know, if but obscurely; but science justifies and illuminates action. To seek is to possess faith, and to act for one's faith. And this is precisely what the majority of 'believers' do not see; they oppose their faith to science instead of discovering in science the foundation of faith."

From the preceding *résumé* it will be apparent that the views of Dr. Berr are at many points in accord with the tenets of *The Open Court*, and we are glad to be able to call attention to a work which contains so much that is stimulating and good. We are far from agreeing with the author on all points, (e. g., as to the significance of the Parliament of Religions) and would certainly not accept his explanation of the religion of *The Open Court*, made on page 498, as a sort of "perfectionment of the positivist religion," from which it differs fundamentally.

Erudite but withal quite lucid and comprehensible, and certainly frank in its utterances, the volume of M. Berr is sure to find numerous American readers.

T. J. McC.

TORA'S HAPPY DAY. By Florence Pettier Perry, Editor of Children's Department in *Mind*. Illustrated by Gaingero Yeto. New York: The Alliance Publishing Company. 1899. Pages, 47. Price, 50 cts.

This booklet is in album form and executed in Japanese style, but with American workmanship, and by a Japanese who has to some extent adopted American style. It describes the day of a Japanese boy who invites a poor companion to take his place in his father's carriage for a drive into the country, to enjoy himself under the beautiful blossoms of the cherry-trees. It is apparently an imitation of a Japanese book of the same character, *Mitsu*, and is quite pleasing in its way; but we doubt whether it would not be better to have retained the purely American style—at least original Japanese art seems to us more captivating, and will probably be regarded as more artistic. People interested in American-Japanese style may like the booklet as a Holiday gift.

MAGIC. STAGE ILLUSIONS AND SCIENTIFIC DIVERSIONS, INCLUDING TRICK PHOTOGRAPHY. Compiled and edited by Albert A. Hopkins. With Four Hundred Illustrations. New York: Munn & Co. 1898. Pages, xii, 556. Price, \$2.50.

This book of more than five hundred pages, with four hundred illustrations, is an elaborate treatment of the art of sleight of hand, giving full explanations, also, of kindred subjects, such as the Greek-temple tricks described by Heron, and the mechanical means of producing remarkable stage effects. The book cannot fail to be interesting, especially as in its line it is almost complete; and the price of the book, \$2.50, must be regarded as cheap considering its size and the profuseness of its illustrations.

In 1892-1893, Prof. Émile Boutroux, now a member of the Institute, delivered at the Sorbonne, in Paris, a course of lectures on the *Concept of Natural Law*.¹ The lectures seem to have been in considerable demand, and were reprinted some years ago in separate form. The reader will find in them a concise and good *résumé* of ancient and modern speculation on the character and functions of the

¹ *De l'idée de loi naturelle dans la science et la philosophie contemporaines*. By M. Emile Boutroux. Paris: F. Alcan, 108 Boulevard Saint-Germain. 1895. Pages, 143. Price, 2 fr. 50.

concept of natural law, even though he may not be prepared to accept Professor Boutroux's individual opinions, some of which are open to criticism. The author has analysed the various types of natural law furnished by science, considering successively logical, mathematical, mechanical, physical, chemical, biological, psychological, and sociological law. He does not accept in its fullest extent the doctrine of absolute determinism in nature as based upon the Greek conception of mathematics. For him the necessity of mathematics itself is not altogether unconditioned, and a parallelism of the necessity of natural law with the necessity of mathematics can be conjectured only. This opens the way to the introduction of "liberty."

Dr. Raoul de la Grasserie, Laureate of the Institute and a judge of the City of Rennes, Brittany, has just written a work on *The Psychology of Religions*¹ which will naturally claim the attention of many readers of *The Open Court*. Dr. Grasserie does not enter upon the problems of the science of religion from the purely logical and objective point of view, but takes up their study from the subjective point of view of each religion itself. He does not inquire whether any given religion or any given group of religions is objectively true, but he regards each as an actual product of the evolution of human society and of the human mind. Eliminating the sociological factors, Dr. Grasserie studies the development of religions in their psychological aspects only, viewing them as purely mechanical reflexes of mental evolution. He finds in their manifold sweeping similarities the law of the unity of the human mind, and observes that religion *is cast in the mould of the mind*, of which it preserves all its depressions and reliefs. The search for the fundamental unity in the apparent diversity constitutes the task of the psychology of religions.

The work is divided into three parts, the first being devoted to the genesis, evolution and mechanism of religious dogmas, ethics and systems of worship; the second to the formulation of the psychological laws which obtain in the development of religions; and the third to an exposition of the psychological mainsprings and causes of religious evolution.

One of the ingenious conceptions which the author makes use of, is the psychological law of capillarity, or the principle by which the individual is attracted or sucked to higher social, ethical and religious levels.

Among the calendars published by the Taber Prang Art Co. our eye is attracted mainly by the *Calendar of Centuries*, which is a historical review of the last five hundred years in five tableaux. The first shows Columbus's ship with sails spread and in the corner the coats of arms of Columbus, Amerigo Vespucci, and Cabot. The second picture illustrates the invasion of Central America, some knight holding up the Spanish flag and receiving offerings from American natives. The coats of arms of Cortez, Pizarro, and Drake indicate the heroes of the sixteenth century. The next illustration introduces us into a pilgrim home with the coats of arms of Raleigh, Bradford, Standish, Lord Baltimore, Eliot, and Winthrop. The century ending with the Declaration of Independence illustrates the Revolution and shows the coats of arms of Washington, Franklin, Madison, Hamilton, and Lafayette. The nineteenth century serves as a cover and represents Columbia and the industrial development of the present age. Other calendars in the same style are *Our Navy*, *Maids of Olden Time*, *Fair or Fowl*, etc.

¹ *De la psychologie des religions*. By Raoul de la Grasserie. Paris: Félix Alcan, 108 Boulevard Saint-Germain. 1899. Pages, 308. Price, 5 francs.

Committee



EROS AND PSYCHE.

Frontispiece to *The Open Court*.

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EROS AND PSYCHE.

RETOLD AFTER APULBEIUS.

A RIVAL OF APHRODITE.

IN the days when the Olympian gods still governed the world, there lived a king and a queen who had three beautiful daughters. The elder two, Megalometis and Baskania, were exceeding fair, but the youngest, whose name was Psyche, so much surpassed



her sisters that human language seemed too poor to express worthily her charms ; for, indeed, Nature had exhausted upon this sweet maiden all her treasures of grace and loveliness.

Psyche was remarkably demure and modest. She loved and

worshipped Artemis, the tutelary deity of virgins, but shunned the gay festivals of Venus Aphrodite, the goddess of love and beauty.

When once upon some special occasion the three princesses were expected to appear in public as priestesses of Aphrodite, Psyche refused to accept the honor and thereby gave offence to the



goddess; but her parents reproached her for neglecting the duties of religion and persuaded her at last, though not without great difficulty, to fulfil the office and serve the deity of beauty in the temple according to the established rites of pious usage.

When Psyche at the appointed moment stepped forth to the

altar in the presence of a great multitude, she looked so beautiful in her maiden coyness, that the people gazed at her in wonder and forgot everything else for her sake. They were so enraptured with the sight that they called out "Here is Beauty incarnate! Here is the living Aphrodite! Here is the true goddess of love!" and strewing flowers in her path they stood before her in awe and worshipped the maiden as though she were Venus Aphrodite herself.

The fame of Psyche's beauty rapidly spread throughout the surrounding countries, and the legend became current that Venus Aphrodite, had appeared in the flesh, and walked visible in the society of mortals.

The temples at Paphos, Cnidus, and even at Cythera, stood deserted. The statues of Aphrodite no longer received their due



honors, and her altars were covered with cold ashes. Every one who wanted to pay homage or offer prayer to the goddess of Love and Beauty now addressed himself to Psyche and adored in the lovely princess the ideal of womanhood.

Since all honors of divine worship were profusely showered upon a mortal maiden, Aphrodite became incensed and said in her indignation unto herself: "Shall I, the divine mother of the universe, the origin and source of all things, yield my place and honors to a miserable mortal maiden? Shall my holy name be profaned by being attributed to a woman of human parentage only because she is supposed to bear my image? Should I surrender the golden apple, the prize for the fairest, to a daughter of the earth endowed with a beauty that is fading? Never! Be she as radiant as the

rising sun or as noble in descent as the most ancient royal houses, she shall not enjoy her assumption, and I will take care that she shall soon curse her criminal pretensions."

Brooding on vengeance, Aphrodite came up from the sea and called her son, Eros; she greeted the winged wanton youth with motherly tenderness, and said: "Go down, my boy, to the city which I shall point out to you, and you will find there in the royal palace a princess by the name of Psyche. The frenzied creature dares to vie with your mother, and has become a rival of my beauty. I conjure thee, let me have full revenge. Seize thy bow and arrows, take her heart as thy aim, make her the slave of an unworthy love,



and when the giddy girl inconsiderately sacrifices her honor and self-respect, she will speedily by her own foolishness ruin her beauty, and degrade her dignity. One who dares to rival the gods must be prepared to pass through the severest ordeals and to go down to the realm of death in misery and wretchedness."

Eros departed in the direction of the royal palace of Psyche's parents. His eyes beamed with mischief when he descended into the orchard, hiding in the branches of an apple-tree, like a hunter who deems it wise first to study the habits of his game, and a smile of satisfaction passed over the face of Aphrodite when she saw how readily and gladly her son complied with her request.

Aphrodite saw the winged sportsman disappear at a distance and took now her way over the ocean. Mermaids, the daughters of Nereus, accompanied her; dolphins drew the conch-chariot through the waves, and a host of Tritons surrounded the glorious spectacle, leaping up from the billows and frolicking in joyous intoxication. One of them held up to the goddess a mirror, some made music by sounding sea shells, others spread a frothy web against the sun, and all were delighted to behold the divine beauty which is the source of all existence and the benign mother of the world.

THE SACRIFICE.

Psyche, in the meantime, did not enjoy the glory of her charms. The people admired and praised her, but there was none who dared to seek her in marriage; and had there been one bold enough to woo her, the suitor would scarcely have been worthy of her hand and would have proved unacceptable to the princess. Her older sisters had been wedded to kings, and were happily married, but she remained at home even as a widow, bewailing her fate and hating the very beauty which was the cause of her misery. The king, her father, fearing that the gods were angry with his daughter, inquired at Delphi of Apollo and received the following oracle:

"Lead this most lovable maiden
 Away to the top of a mountain.
 Let her appear as a bride,
 Ready to enter the tomb.
 Chant hymeneals and dirges;
 Her groom is that terrible tyrant
 Whose jurisdiction extends
 Both to the heavens and hell.
 Do not ye dare disobey,
 But trusting submit to the mandate.
 Joy shall be mingled with gloom,
 For your bereavement bodes bliss."

When the oracle became known, the whole country was overcome with grief. Above all, the king and the queen lamented the sad fate of their daughter, but Psyche with calm composure said to her parents: "What is the use of your weeping and wailing? This is the penalty for my beauty. When all the people called me the fairest of the fair, and worshipped me as Aphrodite, the goddess of love, then it was time for lamenting. Attend now to the ceremony without further ado, and remember that there is only one Aphrodite, one divine mother of all things, who by right deserves

the honor of being worshipped as the eternal standard of beauty. I am resigned, and will welcome the awful spouse that destiny has chosen for me."

Being unable to resist the will of the gods, the wretched parents prepared the maiden for the funeral marriage. The nuptial torch was lit, but it had for the princess no light, only dismal fire and smoke; the hymeneal hymn was chanted, but its tune was changed into a mournful dirge. The princess was dressed in costly garments and decked with choice flowers, but under her bridal veil she wept bitter tears.

Psyche was led out of the city to the top of a high mountain. The priests attended to the ceremony in sadness and the people commiserated the pitiful lot that had fallen to her. When all rites



had been duly performed, the multitude of friends and sympathisers who had accompanied the doomed maiden returned to the city. Only her parents lingered for a while longer with their unfortunate daughter, but at last they too parted and Psyche cried out: "Fare ye well, and let me find comfort in the thought that you will moderate your grief. Remember that my name is a prophecy: it links my destiny with invisible but strong ties to the fate of the dainty butterfly. A grovelling grub entombs herself as a chrysalis in the cocoon whence she cometh forth a being of celestial beauty, whose body seems to consist of pure ether and rainbow colors, a winged flower, a living parable of thoughtful sentiment and a fitting emblem of the human soul."

THE WONDERFUL PALACE.

Psyche remained alone on the mountain top in gloomy loneliness. Overcome with the heat of the day, and breaking down under the fatigue of the excitement of parting, she fell asleep. Hav-



ing regained some strength, she felt a cool breeze fanning her burning brow. It was Zephyr, the mild evening wind, who, at the behest of Eros, approached her, and gently lifting her up carried the dreaming princess down over the craggy rocks and the winding

streamlets of the mountain-side, to a flowery meadow in the valley below.

When the maiden awoke she was surprised to find herself lying on the turf in fragrant herbs, near the trees of a grove. A babbling brook as clear as crystal meandered through the valley and where its limpid waters rushed over the rocks in a melodious cataract, there she saw looming up before her a grand palace, wonderful in its structure and noble in its decorations. Refreshed in body and soul, she ascended the stairs which led up to the mysterious building and entered through the stately portal.



The enraptured maiden felt as if she were dreaming. What elegant halls and chambers! The columns were of gold, the walls of solid silver inlaid with enamelled pictures and curiously wrought in various hues. Psyche's eyes wandered in bewilderment from the mosaic of the pavement to the exquisite designs of the ceiling and then again to the statues and vases that embellished the niches. On all the things, presenting themselves to the intruder's timid gaze,

there rested a heart-gladdening repose that made the house a fit place for the communion of gods with men.

While Psyche was still lost in admiration she heard a voice which said: "Welcome, beautiful bride, welcome to thy home; thou shalt be the mistress of this mansion which thy husband has provided for thee!"

The astonished maiden looked round, but she saw no one. The air was filled with fragrance and the words sounded like music, but the speaker was invisible and seemed to hover near her, quite near in bodiless presence.

"Who art thou?" asked Psyche.

"It is thy husband that greets thee," was the reply.

"Whosoever thou mayest be," rejoined the maiden, almost out of breath in surprise and suspense, "Wilt thou not show thyself to thy bride that I may see thee face to face? I was told that the husband whom fate has destined to me, is a terrible tyrant, a superhuman monster whom the celestials fear no less than the inhabitants of hell. Show thyself as thou art and do not assume a more pleasing shape than thy real nature warrants."

"Dearest bride," replied the voice, "be satisfied with my love



and have confidence in thy husband. An unalterable decree renders it necessary for me to hide my face, but at night when utter darkness surrounds us I shall be with thee and thou shalt feel my presence. Then thou thyself shalt judge whether I am truly that monster whom thou expectedst. But now let thy cares vanish and allow my servants to minister unto thee."

Psyche now inspected the palace and its extensive grounds. The invisible servants explained to her the significance of the pictures and other treasures. If she could only see her companions! but they were like air, and when she tried to seize them they dodged and escaped like birds.

Having strolled through the meadows and the park of the palace, Psyche entered the bath ; and when she sat down at a table, a banquet with rare dishes was served by invisible hands. But when the night drew near she retired into an elegant bed-room and locked the door behind her. Although celestial music resounded over her couch, she became conscious of her loneliness and began to weep, for she thought of her parents and sisters and the friends she should never meet again. But soon she fell asleep ; and sweet dreams refreshed her soul.

Suddenly Psyche was awakened by the touch of a warm hand



and a kiss on her lips. She shuddered in fearful expectation of an unknown danger. But a sweet voice, the very same that had accosted her at her entrance into the palace, comforted her in her distress, saying : "Fear not ! though the darkness of night surround thee, I am with thee ! My love shall protect thee. Shouldst thou pass through the gate of death thou wilt be guarded by the spell of my thoughts. I sustain thee and cherish thee. Even if thou goest down to hell, thou shalt not perish. Thou art mine, O thou soul of my being ; and I am thine—I that am love, I that am the delight of the world, I that am the giver of life."

A thrill of joy passed through Psyche's soul. She opened her arms, and when she closed them, she embraced the tender form of a youth in the bloom of life. And as she felt his sweet breath on her cheek she trembled with rapture, and cried out, "Who art thou, and how is it that thou takest pity on me, the outcast who have been doomed to die as a sacrifice on the altar of the most terrible monster among the demons of hell?"

"Fear not that monster of whom the oracle spoke," said the youth in a low whisper, "for I am he, I am the demon whom the



inhabitants of heaven fear as much as do the denizens of hell. I am thy husband and thou art my bride."

"Why then," rejoined Psyche, "if thou truly art Death, the fearful ruler in the land of shades, whom even the mighty Zeus dreads, why dost thou come to me in so pleasing a disguise? Thy voice is music, thy breath the perfume of roses, and the touch of thy lips transports my soul. What shall I call thee, thou sweet dissembler?"

"Call me Love," said the voice, "for that I am!"

While thus Psyche pledged her troth to the husband that offered her his love, a choir of invisible spirits sang the hymeneal hymn :

"O Love and Death, O Death and Love,
How wondrous kin ye are,
The planet Venus thus at once
Is evening and morning star!"

"O Love and Death, O Death and Love,
Life ended, Life begun.
The sun may rise, the sun may set,
'Tis still the self-same sun,

"Life's problem here at last is solved.
Step in; the door's ajar.
O Love and Death, O Death and Love,
How wondrous kin ye are."

LONGINGS.

Psyche lived happily with her unknown husband and would have remained contented had not the incertitude of her husband's person disquieted her mind. During the day she was entertained



in every possible manner by the tame birds and animals that peopled the groves, as well as by the invisible servants that ministered unto her and anticipated even her most secret desires; and in the night her husband visited her, unseen and unknown, yet kind and loving, frequently full of sport, and always merry and buoyant.

What a pleasure his company was, how entertaining his conversation. Sometimes his thoughts were lofty and inspiring; sometimes they were playful or even boisterous and wanton. Now his words were deep like Plato's philosophy, and now he was full of frolic and mischief. Was it possible that so many contradictions could be united in one man?

Psyche asked in vain for an explanation of the mystery; he evaded all questions and at last bade her no longer be disturbed by

doubt but to trust him implicitly, for he added, "inquisitiveness threatens you with danger. Either I am the deadly monster, as the oracle called me, then thou must take me as I am ; or that grim fiend is after all not so terrible as people imagine."

So long as her husband stayed with her, Psyche was satisfied with her fate, for he laughed all her sorrows to scorn and made her forget all anxiety ; but when he was gone, she felt desolate and the diversions of her invisible servants gradually grew stale and tedious. Incertitude seemed worse to her than the worst positive information. Under these conditions, the young bride became homesick and longed to have some news from her parents and sisters and



friends, that lived in the wide wheat-covered plains beyond the mountain. She began to frequent the most retired places where she took delight in giving herself up to melancholy thoughts.

In the meantime Psyche's parents were disconsolate in their bereavement. Their youngest child had been dearer to them than their own life ; and now, seeking for a moderation of their grief, they sent for their two elder daughters to come home and gladden their afflicted hearts.

The two senior princesses who had become queens in distant countries, were dearly beloved by their husbands, both powerful kings ; and seeing how little their parents would be comforted by their presence, they grew jealous of their younger sister, even

though they deemed her in the clutches of Death, the all-devouring monster king of the infernal regions.

Psyche, being a dutiful child, inquired frequently of her lover about the fate of her parents, and he was glad to bring her the good tidings of the arrival of the two queens. But the news only added new fuel to the flame of discontent that was burning in the bosom of the banished princess, who became now exceedingly anxious to see her sisters and, if possible, talk to them.

Psyche's consort grew very serious, saying: "I will do for you whatever I can; and will allow you to see your sisters who will reappear at the monument that has been built on the mountain-top in commemoration of your departure from the world of men; but I advise you not to talk to them, because it may bring disaster to you and me, and will certainly cause much tribulation, for your intercourse with the world threatens to destroy forever the happiness of our marriage. Venus Aphrodite, the great Goddess of Beauty and most powerful in the assemblage of the Olympians, is still a bitter enemy of yours. We must therefore keep our love secret; and it is best that even you should not know of the difficulties that beset the path of our connubial hopes. Aphrodite imagines now that you are utterly undone. She planned your ruin and destined you to a dire perdition, but I shall not let you die in misery and if ever love can accomplish the miracle, I will make you happy in spite of her enmity."

Psyche kissed her lover fervently; and he continued: "My servants shall do their best and I have taken care to surround you with all the comfort that you may desire." The latter remark reminded Psyche of her loneliness in all her luxuries. She threw up her head and answered rather pertly: "I hate this very comfort which your ubiquitous servants procure for me. They are an insufferable annoyance and I would rather be rid of their meddlesome intrusion. I never know whether they are behind me or in front of me. They watch me like gaolers. I am a prisoner here; nothing but a prisoner. What is the use of a gilded cage if the captive bird is forever cut off from his former companions?"

The maiden began to sob and would not listen to any remonstrance or explanation. She reproached her husband with tyranny until finally he yielded to her entreaties and promised that she should enjoy a visit of her sisters. "But," added he, "be on your guard, and do not allow any one to come between you and me or induce you to pry into the secret of my personality. Nothing worse

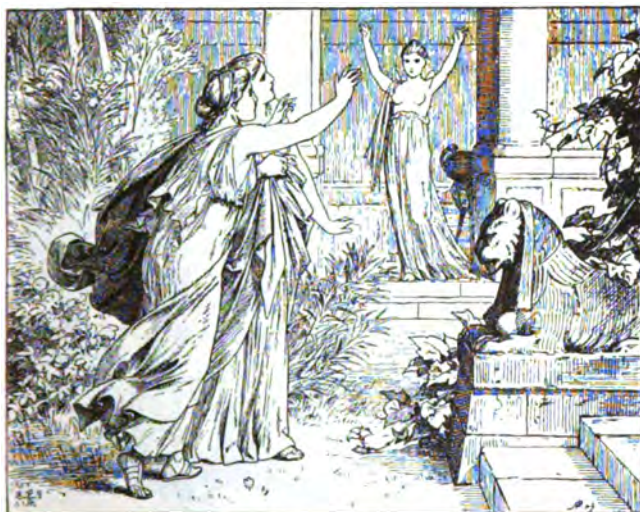
could befall you, for if you would prove disobedient to this behest of mine, your indiscretion might separate us forever."

Psyche promised everything, saying: "I would rather surrender all the comforts which I enjoy through thy beneficence and even suffer death than be deprived of thy company, my beloved husband, my lord and my love."

When her invisible consort left her at dawn of day, Psyche was elated with the idea that she should soon see her sisters and be able to send a message of comfort to her dear mourning parents.

INTRIGUES.

Megalometis and Baskania had betaken themselves to the mountain-top and deposited a beautiful wreath of flowers on their



sister's monument, when Psyche bade Zephyr bring them down to the palace in the valley. The two sisters had a feeling as if they were precipitated into a deep abyss; they grew dizzy, but when their feet were again placed on solid soil they were astonished at the marvellous change of their surroundings. What a magnificent building rose before their eyes, and there between the marble columns stood Psyche! "Sisters," she cried "why do you mourn for me? behold I am happy and know no pain, no misery, no cares. Follow me into my residence and delight with me in my good fortune."

With these words she embraced her sisters and urged them to

enter. "You must see my new home," she added, "and tell my parents that I live and am happy. It will assuage their grief, for they will then know that there is no cause for mourning."

The young bride, proud of her husband's powers and munificence, showed her visitors through the halls and corridors of the palace resplendent with luxury and comfort. Her guests had difficulty to conceal their envy, for though both were queens and in possession of great wealth they had never in their lives seen the like in grandeur and costliness and beauty. At last Baskania asked Psyche for her husband. "Could we not meet him and see him ;



for our parents will be anxious to know what kind of man he is, and how he happens to come into the possession of all this wealth."

Psyche excused herself with her husband's absence and when requested to describe his appearance, she remembered his injunctions and evaded telling her sisters that she herself neither knew who he was nor had as yet even seen him face to face. So she invented a story and said that her consort was young and good-looking, that he was a great lord of large estates and a passionate hunter. Most of the time he used to roam through the mountains and was frequently late in coming home.

When on the wings of Zephyr the two sisters returned to their

parents' residence and while still walking together on the road from the mountain to the royal palace, they began to gossip about the things they had seen and Psyche was sharply censured. Said Megalometis: "There you see, how blind Fortune is! She showers her gifts upon this foolish girl who has neither desert nor merit to speak of and is not even pretty. All her beauty is skin-deep and will fade away with the bloom of early youth."

"Pretty she is," replied Baskania, "but as silly as a goose. Even at school she was slow and acquired no accomplishments whatever. But she will soon come to grief if we can only meet her husband and open his eyes to her shortcomings."

When in the next night the mysterious husband visited his lovely wife, he gave her warning not to trust her sisters, as they were scheming against her. "My beloved bride," said he entreatingly, "do not see these wicked women again. You are no match for their plottings and will be easily decoyed by them."

Psyche, however, was deaf to her lover's warnings. She deemed herself safe, and retorted: "Did I not guard our secret with care and have I not artfully concealed the sad truth that I absolutely know nothing about my spouse? I wonder what they would have thought of a husband's whim to remain invisible to the eyes of his loving wife?"

"How unconscious you are of the danger which threatens us," replied Psyche's consort, "but I warn you again to be on your guard, not only for my sake, nor for the sake of your own happiness, but also on account of the child that some day you shall bear me. Should your sisters succeed in rousing your inquisitiveness to discover my identity, I will have to leave you; for it is beyond my power to oppose the wrath of the celestials."

DOUBTS AND ANXIETIES.

Again the two sisters came to the monument on the mountain-top, and unmindful of her husband's warning Psyche had them conveyed to her palace on the wings of Zephyr. What a pleasure it was to talk of olden times! But the young bride remained unconscious of the evil designs of her malicious visitors who cunningly concealed their envy by false caresses and under the pretense of sisterly love. Soon the conversation touched upon the point which was the sore spot in Psyche's life—the personality of her husband. That he was no normal man was apparent; whence should come that supernatural wealth and the miracles with which Psyche was surrounded! The question was only whether he was a

god or a demon; one of the Olympians or a monster from the infernal regions.

"How is it possible," asked Megalometis, "that your husband can have his mansion furnished with the products of so many strange lands? There is ivory from India and amber from the shores of the Baltic, not to speak of the treasures of Egypt and of Greece!"

"O," said Psyche, "do you not know that my husband is a wealthy merchant and has spent more than twenty years travelling in foreign countries?"

"How interesting!" exclaimed the false sister, in well simulated surprise. "Then he must be a man of large experience, wise and sedate, and cannot be a mere boy as I always pictured him"—added jestingly—"a mere youth, young and indiscreet, such as you are, my sweet little innocent!"

Psyche smiled. Not suspecting a snare covered by this apparently good-natured taunt, she replied: "Indeed, my husband is in his best years, rather in the middle of life." And thinking that it would be better not to idealise him too much, she continued: "His hair shows occasional streaks of white!"

In her unwariness, Psyche had forgotten her former description, and when she now contradicted herself, the two queens gave each other a glance and they began to follow up the advantage they had gained.

"I wish," said the elder sister, "I could suppress these insurgent suspicions of my soul. I fear, I fear"—therewith she began to weep and sob and could speak no further.

"What alarms you?" inquired Psyche.

"Oh nothing, nothing," replied the sister, "I only thought, . . . ; but I had better keep my thoughts to myself."

"Nay," said the young bride full of apprehension, "speak out; I want to know what you think. It is better for me to learn your suspicions; they will put me on my guard."

After many entreaties, the sister at last burst out in the cry: "My dear, dear sister! I love you so much, and I fear you are not happy. It may be an unnecessary anxiety of mine, but there is some dreadful secret about your husband which makes me tremble for your safety. You are under a terrible ban and you conceal the truth from your own sisters. Love has keen eyes and do you not think that our love penetrates through the veil which you draw over the mystery of your husband's personality? You called him a youth yesterday, now you speak of him as rather advanced in years.

Oh, I do fear there is some truth in the gossip of the people who say that you are married to a most awful babe-eating beast, a dragon, who betrays you by assuming a pleasing form and only bides his time till you will bear a child and then he will devour the infant together with its mother."

Psyche stood aghast with consternation and now confessed to her sisters that she had never as yet seen the countenance of her husband. "None the less," she added, "the touch of his body is pleasant as of a youth blooming in health and beauty." But the subtle sisters knew an explanation for everything. "Dragons,"



they claimed, "change their shape, and the people say that a most appalling monster descends every night into the valley, leaving it again in the early morning. These frightful beasts cannot sustain their simulations in the light of the day and assume their own proper form as soon as the first rays of the sun shine upon them."

"Now I see it all!" cried Psyche, heart-broken, "The oracle proclaimed the truth; and I ought to have known it from the beginning, for the gods speak no falsehoods. I am dreadfully betrayed. My husband takes good care that I should never feel tempted to look upon his face and keeps me imprisoned as a caged bird. Oh, how miserable am I! What shall I do?"

"Do not lose heart so soon, my dear girl," said the sisters. "When dragons assume the guise of a mortal man, they lose their strength and can most easily be vanquished. The beast that visits you is apparently enamoured of your beauty and is unsuspecting of any danger on your part. Here you have a chance of becoming the greatest heroine of Greece. He will come as usual to beguile you with his false love, and when he then, tired from his long flight and intoxicated with your caresses, is overcome with slumber, you must unflinchingly and without hesitation slay him in his sleep. What a glory awaits you, Psyche, when you rid the world of this pestiferous monster which makes so many mothers miserable by snatching away and devouring their infants!"

THE MYSTERY SOLVED.

When the two scheming sisters had left the palace, Psyche remained alone with her doubts and fears. Her soul was distracted and her thoughts were like a turbulent sea. Now she was determined to slay the monster, and now she relented. Now she hated the beast that appeared to her in a pleasing disguise, and now her heart was overflowing with tender love for her bridegroom. What should she do? What was the truth? Oh, what will become of her in the end?

When night came, Psyche's invisible husband reappeared in the bridal chamber where the young couple were wont to retire for their night's rest. The young bride received her lover with suppressed fear. She seemed calm, but a storm of wild thoughts, of misgivings and doubts, of wavering reluctance and resolute determination, swept through her heart. She loathed the beast and yet loved the bridegroom; and how should she judge whether her mate was worthy of her love.

He was much concerned about the two sisters and asked whether Psyche had seen them during the day and how they had behaved. The poor girl did not conceal from him that she had received the two queens again and that they were very anxious about her fate. And why should they not be? Was it not sad for a woman not to know, nor to see, the man who would be the father of her children, and should not those who love her be concerned about her fate? Psyche wept bitterly, suggesting that if her husband loved her he should show himself to her in his real form. She insisted that she could bear the worst, but must at last have certitude.

"The moment you see me your happiness will be ended," re-

plied the mysterious youth. "Trust in me, and all will be well, but doubt will bring you to the brink of perdition; yea, it may ruin you." These words of a kindly warning were so convincing and the sound of her lover's voice so sweet and sincere, that Psyche yielded again to his embraces and resolved to confide in him implicitly. And how could he be false to her? If he were, he would neither be so affectionate nor so confiding. There he lay fast asleep, while she (poor girl!) on account of the disquieted state of her mind remained awake.

Psyche was naturally demure and coy. Heretofore she had merely dared to clasp her hands round her consort's neck, but her desire to know more about him made her touch his arm and his back when suddenly she felt something weird—it was something strange, like feathers—certainly not human in form. A feeling that it must be something uncanny came over her. She was terror-stricken and had not an overwhelming dread shut her lips, she would have shrieked out aloud. She rose noiselessly and went out to search for a dagger and a lamp. She had with all her fears and presentiments till now ever preserved a glimmer of hope that her husband was human, and kind, and loving; but now she knew (or at least was firmly convinced of having good reasons to know) that he was an unnatural beast of some terrible shape. She lit the lamp and returned to the couch where she expected to find the terrible dragon whose victim she had become.

"I must hit him in some fatal spot so as to kill him with the first stroke," she murmured to herself, "but I must be on my guard lest he be awakened by the glare of the lamp."

Trembling with excitement, Psyche approached lifting up her hand armed with a sharp blade and ready to strike with all her might, when, behold! The rays of the light disclosed to her sight that most beautiful youth—Eros, the god of love, with his wings on his shoulders and his bow and arrows lying at his side. She was overwhelmed with delight and dropping the dagger raised the lamp over the fair sleeper when suddenly a portion of the heated oil dripping down badly scalded the right shoulder of Eros and wakened him.

"Psyche, Psyche"! exclaimed the fairest of the gods, "why didst thou betray my confidence? I must leave thee now and can no longer protect thee against the intrigues of thy enemies."

With these words Eros rose and flew up into the air. Hesitating a moment, he hovered before the window to take a farewell glance at his beautiful bride. Psyche tried to hold the beloved

fugitive and clung to him, but her strength gave out; and she would have fallen to the ground, had he not held her up and returned with his dear burden to the earth, where he tenderly laid



he weeping maiden on the soft turf of the meadow. Then he hied himself away, disappearing behind the clouds which just began to glow in the gold-red light of Eos, the goddess of the dawn.



[TO BE CONCLUDED.]

EXPANSION, BUT NOT IMPERIALISM.

BY THE EDITOR.

[The speeches of Senators Beveridge and Hoar have attracted much attention all over the country, but neither the one nor the other has, in our opinion, presented the right solution of the question. In a debate which took place on Jan. 17, 1900, before the Sunset Club of Chicago, the editor of *The Open Court* made some comments along the lines in which he has treated the subject from time to time in incidental notes in these pages. The following article is an expansion of his remarks.]

ON the question of the Philippines, our nation is divided into two parties: (1) the expansionists, and (2) the anti-imperialists. They are represented in the Senate by Beveridge, and by Hoar, and here in the Sunset Club by Col. J. H. Davidson and the Rev. Jenkin Lloyd Jones.¹

The expansionists declare that we should not let slip the opportunity of growing in power and expanding into an empire that the world must reckon with and that in the future will make its influence felt all over the globe. The anti-imperialists take their stand upon high moral ground and urge us, not without some display of sentiment, to remain faithful to the ideal of liberty as outlined in our Declaration of Independence.

There is much that is right and good on either side. Both parties emphasise a truth, and I fail to see that the two views should not be reconcilable. In fact, I claim that on the main points, omitting all incidentals, they do not clash at all, and may be combined in the proposition *Expansion, but not imperialism*, which, I trust, will finally be accepted by the nation at large.

Let our new acquisitions, which *de facto*, by right of conquest

¹ The present article is a résumé of the editorial views on expansion, and we hope that our readers will forgive us for repeating some of the arguments presented in former numbers of *The Open Court*. See "Cuba as an Allied Republic of the United States," November 1898, pp. 690-993; "Americanism and Expansion," April 1899, pp. 215-223; "The Filipino Question," June 1899, pp. 375-6; and "The Philippine Imbroglio," August 1899, pp. 504-5.

and treaty of peace, are now our dependencies, be established as federal republics enjoying home rule in agreement with their own wishes and according to the character of their nationalities.¹ When dealing with them, let us avoid the very terms "dependency" and "subject"; let us call them, and in every respect treat them as, independent allies and let us allow them sovereignty in their own sphere of political life. But while we should give independence to Cuba, Porto Rico, and the Philippines, we need not abandon the strongholds and harbor defences of these islands. We might hold them as federal fortifications, but we must hold them under all circumstances, and I go so far as to claim that it is the *duty* of the United States government to retain them, for they are indispensable to the maintenance of our interests in the world's politics; and they have fallen into our hands, not by chance, but through the necessity of our historical development, which led to a conflict with Spain and pitted the representatives of two opposed principles against one another upon the very spots where their interests collided.

As to the Philippines² the best plan may prove to be a division of the territory into various states with different constitutions according to local requirements, ethnological as well as religious. The Mussulmans, the various mountain tribes, the Filipinos, the European colonists of the city of Manila, etc., are too disparate elements to enter as homogeneous ingredients into the plan of a comprehensive Philippine Republic.³ But the various districts might be independent and might form a loose confederacy under the presidency of the United States; and a federal supreme court should be instituted as a court of last appeal in all affairs, civil litigations and criminal proceedings. It would be the duty of the

¹ The question of the constitutionality of the Open Door policy which in the present number is so ably handled by Mr. Roscoe C. E. Brown is a legitimate problem if our new acquisitions are to be treated as dependencies the laws governing which must be manufactured at Washington. But the question could not be raised at all if the proposition were accepted which we advocate as the only practicable solution. It is obvious that whatever relations may be covered by the name of this alliance, our Constitution can have no direct bearing on the administration or methods of taxation in the islands. For further details see the article "China and the Philippines," on p. 333 of the present number.

² We say "the Philippines," not the Filipinos, for the Filipinos are only a part of the inhabitants of the Philippines. We must not forget that the European residents in Manila have a right, too, to make their wishes respected. In addition there are other tribes and residents. Aguinaldo represents only a fraction of the Filipinos.

³ If we attempt to govern the Philippine Islands, we would be responsible for the laws that prevail there, and the criticism of the anti-imperialists that we sanction slavery and polygamy would be just. But if we make of the Sulu Mohammedans a federal state, we could not be blamed for their institutions, and all that can be expected of us would be that we exercise a moral influence upon our allies which will finally lead to the abolition of institutions which are not compatible with our own ideals of civilised life.

latter so to construe the laws of the different states that they would not lead to collisions and would be interpreted in the spirit of modern civilisation and humaneness.

There are imperialists who claim that the Filipinos are not fit to govern themselves. It may be. But have we not large classes in the United States that in this respect are no whit better?

If the inhabitants of our conquered territories are not yet fit to govern themselves (as is so frequently claimed), let us teach them the principles of self-government; and I feel sure that according to the old maxim, *docendo discimus*, we ourselves shall be able to profit by these lessons as much as, perhaps more than, the Filipinos.

The acquisition of the new territories will prove a test of our own worth. Even if we make of them federal republics, our responsibility does not cease entirely; and we shall naturally watch their development with parental pride. As the education of children exercises an educational influence on the parents themselves, so the United States may derive unexpected blessings from a faithful discharge of their duties toward their new wards.

There are many reasons for granting unreserved home rule to the Philippines, but I will here mention only the one that appeals most strongly to the advocates of imperialism. It is this: that our hold on the islands will be strongest if we grant to the inhabitants perfect independence. If we subdue them they will be our enemies. *Quot servi tot hostes*. Let the natives of the Philippines and of all the other new territories elect their own magistrates and attend to the policing of the country by men of their own choice, of their own language, of their own nationality, and according to principles which they deem best. The easiest way of governing people, be they colonists or a conquered race, is by giving them local self-government. The more independent they feel the more satisfied they will be.

If we guarantee the inhabitants of the Philippines their liberty, they will prove themselves to be sincere allies, and in critical times we may rely upon their friendship.

But why should we not abandon the islands entirely? Why should we not with the anti-imperialists say that we have no business in Havana and Manila?

Did you ever consider that from the harbors of Cuba and Porto Rico a bold though weak enemy could destroy within a week our entire coast trade and harrass our maritime cities with impunity? Havana, Cienfuegos, Santiago de Cuba, San Juan of Porto Rico, command the seas that wash our shores, and without them the

canal that is to unite the two greatest oceans of the world cannot be controlled. The possession of these strongholds is of vital interest to us and should not be left to the accidents of the home politics of the islands.

The same (in a modified form) is true of the fortifications of Manila Bay, of Apia, and Honolulu. To surrender any one of these fortifications would be treason toward the mission of the United States. Cavité in hostile hands would, in the emergency of war, be a formidable weapon against us; but Manila Bay in our possession will serve our navy for a basis of operation and will offer our merchantmen in the far East a convenient place of refuge.

The idea that the business of the United States is at home, and that the Illinois farmer has no interest beyond the territory which he plows, is a grave mistake. The world is one great organism, and if we cannot, or dare not, take a strong stand in the Gulf and in the Pacific we shall soon see our national life crippled in our own country. If we want to stand up for American principles in contrast to European principles, we must look out for the future and strengthen our position which is much weaker than our national vanity would admit. It is not enough to talk about ideals, we must work for them and, if need be, fight for them.

Aye, to fight for them! There is the rub. Our friends, the anti-imperialists, as a rule, denounce war and speak of the dangers of standing armies and militarism. But this world is a world of struggle; and he who does not struggle will be trampled under foot.

War is terrible, but we cannot change the constitution of the universe, the plan of which is to bring out nobler qualities by combat and competition. We can replace the crude modes of battle with more refined methods, the club with the gun and the gun with legal argument; but even a lawsuit remains a struggle, and the stronger one conquers.

Strength is an indispensable quality, but there is this comfort that brute force prevails only for the moment, and strength not allied with justice cannot stand. It is right that gives to power endurance, in which sense the saying is true that right is might.

Arbitration will become a more and more acceptable way of settling international disputes; but we shall see that arbitration will be decided in favor of that side which in case of war would win. The United States are a peaceful nation, but they will remain at peace only so long as they are strong enough to defend themselves against foreign infringement.

As to militarism I claim, first, that it is dangerous only when

the life of the nation is rotten. Secondly, if we grant the newly acquired territories home rule, we shall have as little need of a standing army in the Philippines as we have here among us to-day for the sake of keeping the United States loyal to the Union. And, thirdly, what we need to maintain ourselves in the struggle for existence among the nations of the world is not a strong army but a strong navy, and no one has as yet claimed that the navy might become dangerous to the liberties of the nation.¹

We wrong no one in retaining these harbor defences of the islands ceded to us by Spain; for certainly neither Aguinaldo nor any of his followers has a better title to the possession of Cavité. The Filipinos are not the only inhabitants of the Philippines; the colonists of European extraction have no less a right to life and liberty in the islands; and *we* have the same right as they to go there. Let our navy, whom destiny and duty brought thither, in the name of our government have and hold what through an inevitable course of events fell into their hands.

By granting independence and home rule, nay, even sovereignty, to the inhabitants of the islands, but retaining the strongholds of the country, we can be good expansionists and at the same time thorough anti-imperialists.

Allow me here to make an incidental comment as to the nature of sovereignty, what it involves and what it does not involve. Sovereignty means independence and involves the right of administering one's own affairs without the intrusion of outsiders. But the sovereignty of a state or a monarchy does not necessarily involve

¹ Militarism is dangerous in France, because there is something rotten in the Republic, but it is not dangerous in Germany. Most of the Germans who denounce the German army as an unbearable burden or an imperialistic institution are deserters or people who left the fatherland merely to shirk their military duty. They know not whereof they speak. The army is a two-edged sword, which the government is very fearful of using for selfish ends, for they know very well that they could not use it twice with success. The author of this article served in the Prussian field artillery, regiment No. 17, and was attached as a lieutenant of the reserves to the Saxon artillery, regiment No. 12, until he became naturalised as a citizen of the United States, and he challenges anybody to deny that the regulations of the German army have a good deal of democratic principle in them. There is no respect of person but duty rules supreme and the practical application of this rule is one, perhaps the main, reason of its strength.

So long as they were warlike, so long as they were ready to fight for their ideals and the expansion of their kind of civilisation with sword in hand, the Roman Republic stood unshaken, but when they became refined by the luxuries of peace and left the glory of dying for their country to mercenary soldiers, Rome degenerated and the establishment of Caesarism became necessary as the best thing that could be had under the circumstances. Militarism in itself does not endanger liberty; but lack of strength and flabby love of peace at home and abroad do.

One of the speakers at the Sunset Club praised Mr. Gladstone's love of peace; but please bear in mind that by his principles of avoiding war he encouraged England's enemies, and the whig ministry had to wage more wars than its Tory predecessor Lord Palmerston.

Far from being a noble and moral principle, the ideal of peace at any price is mere sentimentalism, and is as immoral as the ovine morality of those who admire the sheep for its good nature in allowing itself to be devoured by the wolf.

the regulation of import duties, and a series of rights which are exercised by the representatives of a confederation of two or several allied sovereign states. Thus, the states of our Union are sovereign states, and so in Germany are the kingdoms of Bavaria, Würtemberg, and Saxony; but they, as such, have no representatives at foreign courts; they have under their control no standing armies, nor do they possess the right of levying duties or any other indirect taxes. There is no need of entering into details, as it will be sufficient to indicate that the sphere of regulating international relations is a province of its own which does not necessarily belong to the institution of home rule.

It is in the interests of the islands themselves that we should reserve to ourselves, at least at present, the regulation of their international relations, for thus alone can they be protected against foreign encroachments which, for instance, Hayti has suffered repeatedly at the hands of European powers; and the mode in which we should in the course of time change this condition may fairly be left to future developments.

Let us look out for advantages that are real, which consist in the expansion of our industries and our commerce, including the possession of a few important strongholds of strategic importance for the protection of our interests in cases of war, but not in the acquisition of territorial possessions with the right to interfere with the home politics of other nations, which only increases our responsibilities, leads to complications of incalculable intricacy, and renders our position precarious.

Under all circumstances the policy of changing our dependencies into federal republics as independent as possible in their home politics seems to be the most promising, the easiest, and the best method of dealing with the intricate questions that arise from our territorial expansion. We should have in that case all the advantages which other nations have through actual possession, and should be relieved of the responsibility of detailed management, which, after all, is a risk and a danger, bringing no returns whatever, except perhaps to a few office-hunters, to keep out whom would be a great blessing and would save our nation the unpleasant experience of making itself obnoxious to its new allies.

Genuine expansion carries the principles of our own history with it and extends the blessings as well as the responsibilities of home rule to those who come under our influence. Imperialism however is a mere external show of expansion without any actual benefit. Imperialism would weaken our position in the world.

But because we should not allow our country to drift into imperialism, we must not set our face against expansion. Why should we? If the feet of our boys are growing shall we not allow them to wear boots of a larger size?

The anti-imperialists claim that expansion is a new departure in the history of the United States, but this is an error. We have been expanding since the very day that the thirteen colonies constituted themselves as states, and an irony of fate which is so often visible in history placed Thomas Jefferson, the leader of the anti-imperialists, then called Whigs or anti-federalists, in power at the very moment when the first opportunity offered itself of a most important expansion. James Monroe, the Whig ambassador of the United States, reached Paris in 1803 at the time when France was preparing for war with Great Britain; and the French government offered to the United States for \$15,000,000 that large tract of territory then called Louisiana, covering the entire Mississippi valley including the whole state of Illinois with our good city of Chicago and extending northward to Canada. The Whig ambassador did not hesitate to conclude the bargain, and the Whig president endorsed it, although it was fundamentally and directly opposed to his anti-imperialistic interpretation of the constitution. He felt urged to excuse his conduct by saying that he "acted like a guardian who makes an unauthorised purchase for the benefit of his ward, trusting that the latter will afterwards ratify it;" but he forgot to ask the consent of both parties concerned, the people of the United States and the inhabitants of Louisiana, and perhaps with good reasons; for the latter, then consisting mainly of French colonists, would undoubtedly have as vigorously protested against the ratification of the bargain as the present inhabitants are satisfied with it. Think what would have become of the United States if England had taken the Mississippi valley which at this critical moment was prevented only by an anti-imperialist acting according to the principles of imperialism!

We grant that the present administration made mistakes, but we ought to be charitable; for it is likely that the anti-expansionists, if they had been in power, would have done no better. The situation was difficult, and criticism is easy. They will always be "antis"; some people are born so. It is probable that if the "antis" had been in power, they would be expansionists now; and if not, if they had withdrawn from the islands, the situation there would be worse than it is at present.

If the purchase of Louisiana had been made by a federalist

president, would not Mr. Jefferson have censured him severely for the unwarranted trespass of his power? Since the silver issue has worn out, the "antis" need a new campaign cry, and it seems that anti-expansion is the best obtainable.

One more word. Cuba seemed to be a witches' cauldron of restlessness and yet our relation to the island is so far quite satisfactory. On the other hand, the Filipinos were regarded as a peaceful nation who would be easily managed and might quickly be Americanised. Yet we have trouble upon trouble with them and in spite of many official announcements that the end of the revolution is near on hand, their pacification is still unaccomplished. And why? because the United States government was careful enough to treat Cuba according to the principle here sketched out, but did not deem the same consideration necessary for the Filipinos.

Let us heed the lesson which these facts teach.

THE CONSTITUTION AND THE "OPEN DOOR."

BY ROSCOE C. E. BROWN.

IS THE "open door" in the Philippines a "political myth"? Has the Government of the United States exceeded its powers and promised what it cannot perform in announcing to the nations through its Peace Commissioners at Paris its policy "to maintain in the Philippines an open door to the world's commerce"? With the near prospect of the restoration of normal conditions in the islands these become practical questions. On the answer to them will depend our power to make our Asiatic possessions an aid to the liberal trade policy which we in common with Great Britain are trying to uphold in China, instead of having our presence in the Orient a stumbling-block in our own commercial path and an irritation to the rest of the world.

Those who hold that no separate tariff for the Philippines is possible base their opinion on the Constitutional provision:

"The congress shall have power:

"To lay and collect taxes, duties, imposts and excises; to pay the debts, and provide for the common defence and general welfare of the United States; but all duties, imposts and excises shall be uniform throughout the United States."

The interpretation of this rule as applying to our new possessions requires the assumption, first, that all territories of the United States under all conditions are within the United States in the meaning of the Constitution, and, secondly, that in the view of the organic law the Philippines cannot possibly be differentiated from continental territory. Two cases in the Supreme Court are relied upon to uphold the first contention. One is the dictum of Chief Justice Marshall¹ in 1820. Arguing that Congress had power to extend a general direct tax to the District of Columbia, the Chief Justice remarked:

¹Loughborough vs. Blake, 5 Wheaton 319.

"The power, then, to lay and collect duties, imposts and excises may be exercised, and must be exercised, throughout the United States. Does this term designate the whole or any particular portion of the American empire? Certainly this question can admit of but one answer. It is the name given to our great Republic which is composed of States and Territories."

More directly touching the Philippine tariff question is the decision of the Supreme Court¹ upholding the collection of duties under the United States tariff, without action of Congress or the establishment of a collection district, in California in 1849. Justice Wayne in his opinion said :

"By the ratifications of the treaty California became a part of the United States. And as there is nothing differently stipulated in the treaty with respect to commerce, it became instantly bound and privileged by the laws which Congress had passed to raise a revenue from duties on imports and tonnage. . . .

"The right claimed to land foreign goods within the United States at any place out of a collection district, if allowed, would be a violation of that provision in the Constitution which enjoins that all duties, imposts and excises shall be uniform throughout the United States."

Change "California" to "the Philippines," it is said, and the open door is closed. True, it might be, if the Supreme Court, on the case being presented to it, were to decide that with the transposition that decision was still good law. There are many reasons to believe, however, that on review the Court might hold that even our continental territories were outside the United States of the Constitution, and that its tariff applied to them from convenience and not from necessity. And, even if it did not, it is still a far cry from American California to the Asiatic Philippines.

From the first organisation of the Government Congress has been treating territory as in one way or another outside the Constitution, governing it in violation of general provisions of the Constitution which are more fundamental and less limited as to time and place than the tariff rule, and the Supreme Court itself has repeatedly upheld such practices.

The original charter of the United States Bank, approved on February 25, 1791, authorised the directors to establish offices of discount and deposit "wheresoever they shall think fit within the United States." On the annexation of Louisiana they desired to establish a branch in New Orleans, but nobody considered that they had the power to do so. By order of the House of Representatives the Committee of Ways and Means of that body drafted a bill extending the bank's privileges, and on March 23, 1804, the President signed the law authorising the directors to establish branches

¹Cross vs. Harrison, 16 Howard 164.

on the terms of the original act "in any part of the territories or dependencies of the United States." Possibly that was an unnecessary law, but it clearly reveals the views of the men who had a hand in making the Constitution about its territorial application. It shows, too, that the idea of "dependencies" could not have been so foreign to "the Fathers" as their descendants sometimes suppose, since they, who were always splitting constitutional hairs and living in daily fear of opening the door to tyranny, were willing to contemplate "dependencies" in their laws.

The internal revenue laws under the Constitution are as universal and uniform in their application as the tariff laws, but it was not until 1868 that they were by act of Congress¹ extended to apply to all places "within the exterior boundaries of the United States." A curious phrase that, suggesting an interior boundary beyond which the enforcement of the revenue law is a matter of discretion. The territories thus embraced by that act were the Indian reservations and the lands of the Civilised Tribes which the revenue collector had not before invaded. But long before that an internal boundary had been marked out for him. The first internal tax on spirits distilled in the United States was levied by the act of March 3, 1791, which, for the purpose of collection, ordered "that the United States shall be divided into fourteen districts, each consisting of one State." The Territories of the United States were entirely neglected, though they had growing towns, and it was not until 1798 that "The Annals of Congress" showed the existence of a supervisor of internal revenue in Ohio.

The constitutional rule for direct taxes, instead of requiring uniformity, orders that they shall be "apportioned among the several States which may be included within this Union according to their respective numbers." This provision is apparently co-extensive with that concerning duties. If the makers of the Constitution were so deeply concerned that the burden of indirect taxes should be laid fairly on all, they must have been equally anxious that the direct tax burden should be borne by all, after the method of apportionment, which was considered equitable in that case. The two clauses must be taken together, and the fact that the one in providing uniformity mentions the United States as a whole, and the other in prescribing rules of proportion among the parts refers to the area of taxation distributively, cannot be taken to mean that the tax limits in the two cases are different. In the first quarter century of the Government's operation several direct taxes were

¹ Section 3, 448.

laid, and solely in the States. Finally one was extended to territory, and in upholding it Chief Justice Marshall delivered his dictum, already referred to, defining "the American Empire." He himself felt embarrassed by his own rule, and confessed difficulty in reconciling a tariff necessarily operative in the Territories with a direct tax operative there or not, at the discretion of Congress. He contented himself with deciding that at any rate, even if Congress was not obliged to tax the Territories, it had the power to do so, and that was the point at issue before the Court. It would seem a good deal more natural to suppose that if Congress had discretion in the one case it had in the other.

The original law for the collection of customs, passed July 31, 1789, divided the States into collection districts, but entirely neglected the Territories. The only collector in the Western country was at Louisville, then in the State of Virginia, and his jurisdiction extended from the Falls of the Ohio to the mouth on the Southern side. The territorial bank of that river was free for the landing of goods without duty. Vermont was left without a custom house until its admission as a State, and so was Tennessee, but as soon as either was admitted a port was established in it, evidently out of scrupulous regard for the Constitution, which forbade preference to ports of one State over those of another. It was not until 1799 that the customs laws were put in force in any part of the Northwest Territory.

When the Louisiana treaty came up for debate the preference for French and Spanish vessels was attacked as unconstitutional. Of course it was defensible as a reservation or "burden upon the fee." But having doubts of the power of the Government, even as a condition of acquirement, to give a privilege which did not harmonise with the Constitution, the supporters of the treaty preferred to defend the grant as concerning things outside the Constitution. Congressman Nicholson, one of the leaders of the House whose word carried weight, thus stated the Administration's position: ¹

"Whatever may be the future destiny of Louisiana, it is certain that it is not now a State. It is a territory purchased by the United States in their confederate capacity, and may be disposed of by them at pleasure. It is in the nature of a colony whose commerce may be regulated without reference to the Constitution. Had it been the Island of Cuba, which was ceded to us under a similar condition of admitting French and Spanish vessels for a limited time into the Havannah, could it possibly have been contended that this would be giving a preference to the ports of one State over those of another, or that the uniformity of duties, imposts and excises throughout the United States would have been destroyed ? . . .

¹Annals of Congress, 1803-'04, p. 471.

"The restrictions in the Constitution are to be strictly construed, and I doubt whether under a strict construction the very same indulgence might not be granted to the port of Natchez, which does not lie within any State, but in the territory of the United States."

The judicial power of the United States is explicitly defined by the Constitution, yet the courts in the Territories are and for nearly a century have been organised without regard to the Constitution and clearly in violation of it—if they are under its control. All the judicial power of the United States of the Constitution is vested in courts whose judges hold office during good behavior, and to them are committed certain functions which are exclusively their own. They cannot be alienated by Congress. Wherever the Constitution runs no other courts are capable of receiving those judicial powers which are reserved to the Federal courts, and which they are commanded to assume. As early as 1816 Justice Story declared, with the concurrence of the whole Court¹: "No part of the criminal jurisdiction of the United States can consistently with the Constitution be delegated to State tribunals. The admiralty and maritime jurisdiction is of the same exclusive cognisance; and it can only be in those cases where previous to the Constitution State tribunals possessed jurisdiction independent of National authority that they can now constitutionally exercise a concurrent jurisdiction." Nevertheless in the Territories courts which were not Federal courts, which were incapable of receiving Federal jurisdiction, exercised jurisdiction of that "exclusive cognisance." In 1828 the exercise of maritime jurisdiction by a Territorial court of Florida was questioned, and in his argument to the Supreme Court in defence of Territorial authority Daniel Webster said:

"What is Florida? It is no part of the United States. How can it be? How is it represented? Do the laws of the United States reach Florida? Not unless by particular provisions. The Territory and all within it are to be governed by the acquiring power, except where there are reservations by the treaty. . . . Florida was to be governed by Congress as she thought proper. What has Congress done? She might have done anything—she might have refused trial by jury and refused a Legislature."

Mr. Webster won his case. Chief Justice Marshall, writing the opinion, said²:

"It has been contended that, by the Constitution, the judicial power of the United States extends to all cases of admiralty and maritime jurisdiction, and that the whole of this judicial power must be vested in 'one Supreme Court, and in such inferior courts as Congress shall from time to time ordain and establish.

¹ *Martin vs. Hunter's Lessee*, 1 Wheaton 304.

² *American Insurance Company vs. Canter*, 1 Peters 542.

Hence it has been argued that Congress cannot vest admiralty jurisdiction in courts created by the Territorial Legislature.

"We have only to pursue this subject one step further to perceive that this provision of the Constitution does not apply to it. The next sentence declares that 'the judges both of the Supreme and inferior courts shall hold their offices during good behavior.' The judges of the superior courts of Florida hold their offices for four years. These courts then are not constitutional courts, in which the judicial power conferred by the Constitution on the general government can be deposited. They are incapable of receiving it. They are legislative courts, created in virtue of the general right of sovereignty, which exists in the Government, or in virtue of that clause which enables Congress to make all needful rules and regulations respecting the territory belonging to the United States. The jurisdiction with which they are invested is not a part of that judicial power which is defined in the third article of the Constitution, but is conferred by Congress in the execution of those general powers which that body possesses over the Territories of the United States. Although admiralty jurisdiction can be exercised in the States in those courts only which are established in pursuance of the third article of the Constitution, the same limitation does not extend to the Territories. In legislating for them Congress exercises the combined powers of the general and of a State government."

In 1849 the Supreme Court reaffirmed this doctrine even more explicitly, and Justice Nelson made this broad statement about Territories¹:

"They are not organised under the Constitution, nor subject to its complex distribution of the powers of government, as the organic law; but are the creations exclusively of the legislative department and subject to its supervision and control. Whether or not there are provisions in that instrument which extend to and act upon these Territorial governments it is not now material to examine."

This last suggestion of an open question as to some shadowy constitutional authority over the Territories is particularly interesting in view of Chief Justice Taney's persistent tendency to subject the government of the Territories to the checks of the Constitution for the protection of slavery. The California tariff opinion, which was almost contemporary with Justice Nelson's, was written by Justice Wayne, of Georgia. He was the man who persuaded the court in the Dred Scott case of the expediency of declaring that Congress had no power to interfere with slavery in the Territories, and he was the only member of it who fully concurred with Chief Justice Taney's opinion. His pleading of the Constitution to justify the California tariff, when it might equally well have been justified as a general exercise of sovereignty, and probably would have been by some other judge, is to be considered in the light of the pro-slavery policy of restricting the powers of the general government. This culminated in the Dred Scott decision, denying that the power "to make all needful rules and regulations" for the Territories ap-

¹ Benner vs. Porter. 9 Howard 235.

plied to more than the old Northwest Territory, and holding that other territory was impressed with a trust for Statehood and already in anticipation subject to the constitutional checks on administrative discretion. Such a contention makes the Government's whole course in dealing with the Louisiana Purchase, and even the Louisiana treaty itself, unconstitutional. A theory of the Constitution which inevitably reaches the conclusion that ever since 1804 the country has treated that document as "blank paper," to recall the strict constructionist Justice Campbell's sneer at Jefferson, is certainly open to question and suspicion.

In many details of government the Constitution as a fundamental law for a United States larger than the States composing it has been made blank paper by events. It is well settled that the constitutional guarantee of jury trial does not extend to actions in the State courts. It is equally well settled that it does extend to all exercise of judicial power by the Federal Government of the Constitution. The first bill for the government of the Territory of Orleans, however, which was drawn by Madison in co-operation with Jefferson and passed in 1804, restricted trial by jury to capital cases in criminal prosecutions, entirely in violation of the Constitution—if it applied. It also vested the appointment of the Legislative Council in the President, without confirmation by the Senate, though the Constitution requires the advice and consent of the Senate to the appointment of specified functionaries "and all other officers of the United States whose appointments are not herein otherwise provided for, and which shall be established by law." No pretence was made in the debates that these legislators were "inferior officers" such as Congress could authorise the President or heads of departments to appoint.

The establishment of this despotism did not pass unchallenged. The bill was denounced as conferring "royal" powers. It was said it did "not evince a single trait of liberty." In the House of Representatives G. W. Campbell, of Tennessee, made an earnest contest for the jury trials and the courts of the Constitution, arguing that "in legislating for the people of Louisiana" Congress was "bound by the Constitution of the United States." A similar attempt at amendment was made in the Senate, but was voted down. Among the majority were such men as John Breckenridge, of Kentucky, a champion of strict construction and the supposed author of the famous Kentucky Resolutions; Timothy Pickering, of Massachusetts; Jonathan Dayton, of New Jersey; Uriah Tracy, of Connecticut, and that stanch Jeffersonian, Wilson Carey Nicholas, of

Virginia—a strange medley of Federalists and State Rights men, who seemed to agree on nothing about the Constitution except that it did not apply to the Territories. Indeed, the prevailing opinion through the whole course of Louisiana legislation was strongly in that direction.

Many more scruples were entertained about the right of Congress to bring new peoples within the operation of the Constitution, and not rule them as colonists, than about any obligation arising from the Constitution itself to govern territory, regardless of expediency, according to its specific provisions. Much was said in both houses of the treaty guarantees of constitutional privileges, and the Louisiana bill was attacked as not keeping the promise to France to incorporate the Territory into the Union as soon as might be consistent with the principles of the Constitution. The Jeffersonian philosophers of liberty anxiously debated among themselves the duty of the United States to live up to its own ideals of freedom. But the suggestion that it must live up to them by a rule of thumb application of a compact made for a union of States found little credit even among those who construed that instrument most strictly in its relation to States. Cæsar A. Rodney's declaration¹ that the Constitution "does not limit or restrain the authority of Congress with respect to Territories, but vests them with full and complete power to exercise a sound discretion generally on the subject," was echoed by many other debaters.

This same question came up with reference to Florida in 1822. The bill was modelled on that of Orleans in its administrative features, and contained a section forbidding the Territorial government to transgress the personal rights guaranteed to the people of the States by the Constitution. Mr. Montgomery, of Kentucky, tried to substitute a clause that all the principles of the Constitution and all the prohibitions to legislation, as well with respect to Congress as the Legislatures of the States, be "declared to be applicable to the said Territory, as paramount acts." This was voted down, and the following is Benton's comment on the incident²:

"This prompt rejection of Mr. Montgomery's proposition shows what the Congress of 1822 thought of the right of Territories to the enjoyment of any part of the Constitution of the United States. . . . The only question between Mr. Montgomery's proposition and the clause already in the bill was as to the tenure by which these rights should be held—whether under the Constitution of the United

¹ Annals of Congress, 1803-'04, p. 513.

² Benton's Abridgement, Vol. VII, p. 295, note.

States or under a law of Congress and the treaty of cession. And the decision was that they should be held under the law and the treaty. Thus a direct issue was made between constitutional rights on one hand and the discretion of Congress on the other in the government of this Territory, and decided promptly and without debate (for there was no speech after that of Mr. Rea on either side) against the Constitution. It was tantamount to the express declaration: 'You shall have these principles which are in the Constitution, but not as a constitutional right; nor even as a grant under the Constitution, but as a justice flowing from our discretion, and as an obligation imposed by the treaty which transferred you to our sovereignty.'

Justice Story, in his commentaries,¹ has thus stated this doctrine:

"The power of Congress over the public territory is clearly exclusive and universal, and their legislation is subject to no control, but is absolute and unlimited, unless so far as it is affected by stipulations in the cessions or by the ordinance of 1787, under which any part of it has been settled."

A host of Supreme Court decisions laying down this law with some reservations might be cited. When those reservations are quoted in support of constitutional restraint on Territorial lawmaking it is to be remembered that the Constitution, as well as the general laws of the United States, are in force by legislation in the Territories. It is indeed curious that Congress should have made the Constitution into a law for the Territories, if that Constitution of itself governed them, but it has done so time and time again in particular cases, and finally summed up these enactments generally in Section 1,891 of the Revised Statutes, which declares:

"The Constitution and all laws of the United States which are not locally inapplicable shall have the same force and effect within all the organised Territories and in every Territory hereafter organised as elsewhere within the United States."

Thus the open question of Justice Nelson's time has been practically closed, and the Supreme Court has for years been declaring as a fact that the fundamental personal rights guaranteed by the Constitution belong to the inhabitants of the Territories. In some cases undoubtedly the opinions tend to uphold the view that the so-called Bill of Rights and the general limitations of the Constitution by their own force extend to the Territories. But even while conceding these rights the Supreme Court often shows a tendency to do so merely on the theory that the old Anglo-Saxon "law of the land" protects all within the range of government from tyranny and injustice.

Thus Justice Bradley² says:

"Doubtless Congress in legislating for the Territories would be subject to those fundamental limitations in favor of personal rights which are formulated in

¹ Section, 1328.

² *Mormon Church vs. United States*, 136, U. S. 1.

the Constitution and its amendments; but these limitations would exist, rather by inference and the general spirit of the Constitution from which Congress derives all its powers, than by any other express and direct application of its provisions.'

It may be conceded that every officer of our Government, owing to its very nature, must exercise his functions in harmony with the spirit of our institutions, with what Justice Matthews¹ called "the principles of constitutional liberty which restrain all the agencies of government, State and National." But that does not compel the application to Territories of particular rules of administration made by States for the government of States in their united capacity. And it should be remembered in construing these rules that, however much the country may have grown and the idea of a broader nationality developed, the framers of the Constitution formed a government for States and committed the territory or other property which might fall to the general government to its complete discretion, with a general grant of power. So those who first added new territory understood and acted, though they were strict constructionists and theoretical democrats.

Perhaps the Louisiana legislation ought to have been declared unconstitutional. But if so, what is to be said of the condemnation to death or imprisonment without jury trial of American citizens by Ministers and Consuls for crimes committed at places constructively made American territory for that purpose by treaty with foreign governments? There is no constitutional warrant for it. If trial by jury is a right of all men subjected to the authority of the United States, is it not as much their right in a consulate at Yokohama as in a courthouse at Santa Fe? The Supreme Court has frankly cut this Gordian knot since it could not untie it. It has said² that though a private American vessel is constructively American territory, yet an offence on it can be punished by a consul without jury trial, for "By the Constitution, a Government is ordained and established for the 'United States of America' and not for countries outside their limits. . . . The Constitution can have no operation in another country."

The rule of uniformity in taxation of what is essentially one people is so manifestly advisable that nobody would wish to change it or even open the door to change. But in view of all the exceptions made in practice to the necessary application of the Constitution to the home Territories, and the political purpose, which about 1850 demanded limitation of the power over them, it is a violent

¹ *Murphy vs. Ramsey*, 114 U. S. 15.

² *In re Ross*, 140 U. S. 453.

assumption to assert that a rule laid down in one particular case then would be literally and slavishly applied to overturn a deliberate policy of the Government formed to meet utterly different conditions which the Court did not and could not foresee.

The Supreme Court itself in the California tariff decision intimated as much. It noted that California was part of the United States by treaty, and it found nothing in the treaty to differentiate it from the rest of the United States. The California treaty did promise to incorporate the Territory into the Federal Union, and naturally judges with the "trust for Statehood" idea in mind would give that promise immediate effect so far as they were concerned with government under it. The fact that they consulted the treaty to learn the Territory's status with reference to the Constitution implies that even this State Rights Court would have regarded a treaty for acquiring a dependency as giving the acquisition quite a different character.

In that respect the Philippines hold an entirely distinct relation to the general government. They are not by treaty taken actually or prospectively into the Union. The United States has simply assumed possession of the Philippines. It holds them, just as all the Federalists, and, indeed, many of the Republicans, believed in 1803 it could alone hold Louisiana. The narrow construction which denied the power of expansion for assimilation has been outgrown. Certainly, it is too late to bind the country in a similar bond of narrow construction carried to an opposite extreme. Nor is there anything new or startling in the idea of dependencies outside the United States. Neither Congress nor the Supreme Court has ever hesitated to recognise and provide for territorial and administrative anomalies. The Louisiana and Florida governments were, as has been seen, utterly inconsistent with the Constitution. The Indians, with their separate laws in States and Territories, have ever been anomalies, and offer a precedent for dealing quite unhampered with Orientals as their needs may require.

Our extraterritorial jurisdiction exercised by Federal officers since 1848 has no warrant in the Constitution for any United States of the Constitution.

Congress did not hesitate to use the word "dependencies" in legislating for the United States Bank.

Later, in 1856, it made laws for the government of the Guano Islands, which at the discretion of the President might "be considered as appertaining to the United States." In other words, they were territory of the United States which was not within it.

Finally, the XIIIth Amendment to the Constitution declares that neither slavery nor involuntary servitude "shall exist within the United States or any place subject to their jurisdiction." The men who drew this had been through the slavery contest, knew the doctrine of limited power in the Territories, and had repudiated it, and won their case in war. They passed the Amendment in the light of their own contention to assure the exclusion of slavery from any territory which Congress ruled or might rule outside the United States of the Constitution.

The supposition that the term United States in that instrument means more than the government over the States united requires the assumption of its use in two utterly different meanings without any indication of the difference. Thus it must be said that the "people of the United States" who make and amend the Constitution are people of States, but the United States for which the preamble says they make the Constitution is the whole "American Empire;" that the United States of the Judiciary Article means only States, but of the Tariff Article all the territories or dependencies over which the Government may extend its rule. And that in face of the final use and implied definition in the XIIIth Amendment of that term in the narrower significance.

Such a restricted meaning is fully in accord with common sense. Who thinks of the Philippines as being in the United States? They are manifestly no part of the system for which our Constitution was made. The belief that the Constitution must of necessity apply to the home Territories, in spite of evidence that the founders and early rulers had no such thing in mind, is due in its present form largely to the feeling of continental interest and common American nationality. The interpretation of the Constitution as a fundamental law for Asiatic islands simply because this country is called upon to rule them is no proper development of that idea of the American Nation. "The Constitution can have no operation in another country," and the Philippines, even though we control them, are another country, physically, morally, socially and commercially.

The reversal of the California tariff decision is not essential to the "open door." The reasons for questioning the law it laid down for this continent are cited only to show clearly how little ground there is in the circumstances of its delivery, and in our history, for stretching its meaning to forbid a Government policy in an emergency which its authors never contemplated. Courts do not thus tie the hands of Government with reference to particular situations

which cannot be foreseen. In a constitution, as Story says, "there ought to be a capacity to provide for future contingencies as they may happen, and as these are . . . illimitable in their nature, so it is impossible safely to limit that capacity."

It has not been limited in this country. The Constitution, in spite of being written, is mobile. It never would have been adopted if its meaning to the present generation had been known to those who drew it, if, for instance, it had been understood as an indissoluble compact instead of a voidable association. Those who thought it made blank paper by the changed interpretations circumstances forced were merely victims of the tendency to limit by one day's conceptions the power of meeting another's needs. Some American trader may follow the example of the plaintiff in the California case, and strive to avoid duties at Manila, or some Spanish interest may seek, regardless of this country's welfare, to close the door to the world's commerce in the Philippines. But it is scarcely conceivable that either could overturn in those distant islands, which have nothing in common with this country and are not a part of its industrial system, a considered policy of the United States with reference to international relations, by invoking a disputed constitutional doctrine, which, even if true, is true only for "the United States of America."

CHINA AND THE PHILIPPINES.

BY THE EDITOR.

WHEN the United States requested the powers to give a definite promise of an open door policy in China, they did so mainly on the ground of abandoning all interference in Chinese politics. The Russians have taken their share of Chinese territory in Manchuria, the English dominate the Yang tse kiang valley, the Germans have taken Chiau Chow as a fair compensation for the lives of two banished Jesuits, the French and the Italians are clamoring for Chinese provinces, and so it was but natural that the United States, too, should receive their sphere of influence. This, of course, would mean the end of China and the division of its coasts among the powerful nations of the world.

To prevent this course, which does not seem very promising to either of the parties concerned—neither to China, which would be sliced up nor to the powers, for the commerce of each one would then be limited mainly to its own provinces,—Lord Beresford proposed the plan of leaving China undivided and of having its integrity guaranteed by the powers, on the promise of keeping it open to the world's trade. The United States of America pushed the plan because it is in their interest. We are not in a position to acquire more territory than has been forced on us and if we go out empty-handed, we should at least have definite and unmistakable guarantees of this open door policy; otherwise, considering future conditions and the probable expanse of our trade in the far East, it would be folly not to take part in the division. Our Chinese trade has been constantly growing, and even now our interests are not less there than those of the other European powers concerned, perhaps with the exception of England. If our business and industries are not crippled by internal strife or party legislation, our interest in Chinese trade should be steadily on the increase, and might in time surpass even that of Great Britain, for the geograph-

ical situation of America as lying between Europe and Eastern Asia is the most favorable for the purpose.

Thus, the offset which the United States are expected to pay for the pledge of the European powers to maintain in China an open-door policy in their various spheres of influence, does not consist in keeping the door open in the Philippines but in abstaining from taking part in the general spoliation of China.

Nevertheless, it would be very unfair if we, the United States advocated an open door policy for China where we actually do not have any possessions, while we would close the doors in the Philippines; and it appears to me that even if the United States were not actually pledged to follow this same open-door policy in the Philippine Islands, they would be in honor bound to pursue it as far as possible. And it is interesting to see that the United States are making arrangements for being assured of such an open door policy in China while they are anxious to preserve the Chinese wall of so-called protection that separates the United States from the rest of the civilised world. So we are willing to have the doors opened in the Philippines provided they remain shut at home.

First let us look at the question from the legal side. That the clause enjoining uniformity of all taxes and duties refers to the United States and not to dependencies which may temporarily or even permanently come into possession of the nation, has been demonstrated from a legal point of view beyond a shadow of a doubt by Mr. Roscoe C. E. Brown. The islands ceded by Spain to the United States are at present *de facto* our dependencies, whatever Congress may later on decide as to their future fate; and as such they cannot be, nor have they as yet been, treated as parts of the United States themselves.

Should the Philippines become a federal republic of the United States in such a way as we have advocated, it would by no means follow that thereby they would possess the right of regulating the import duties, harbor taxes, foreign representation, etc. None of the States of the Union exercise these rights which are specially reserved to Congress and the government of the United States. In Germany the kingdoms of Bavaria, Saxony, Württemberg, the Grand Duchy of Baden are independent sovereign states, and yet they do not exercise the right of regulating import duties, or of sending representatives to foreign governments.

Thus these rights might in the case of the Philippines as well be reserved to a federal commission, or be directly managed by the United States government. But it seems fair that they should

be attended to in concurrence with a commission consisting of men representing the business interests of the Islands; for after all, it seems to me desirable to allow the home government of the Philippines to regulate their own affairs, including the imposition of duties, as they see fit. We ought to allow them to regulate their own commercial relations with the outside world according to their own wishes. We call attention to the fact that the English dependencies enjoy the right of taxing the imports even of their mother country. All that can be claimed is that home government does not as yet necessarily include the regulation of import duties.

There would be another way of allowing the Philippines to be a federal republic of ours, and yet keep the door of their commerce open to the whole world, and this would be by pledging the Philippine government at its instalment and from the beginning through a constitutional clause to such a course, as a condition of receiving the recognition of the world. In a similar way Japan was pledged to an open door policy by Commodore Perry; and the Japanese themselves are agreed on the result as having been most favorable to the development of their country. An open door policy in the Philippines would mean an assurance of Philippine prosperity.

AMERICAN WAR-SONGS.

BY C. CROZAT CONVERSE, LL. D.

OUR civil war's chief war-song survivors are—*Marching Through Georgia*, and *Dixie*. Those of our war with Spain are—*There'll be a Hot Time in the Old Town To night*, and *'Rastus on Parade*.

Some thoroughly excellent and appropriate American national hymns were written, composed and offered to the American people for use during our civil war; but they were not adopted by the people at large. Similarly excellent hymns were prepared for our national use in Cuba and Manila, and likewise failed of attaining general public use.

These superior national hymns may be found in our hymnals and song-shops. They are highly meritorious in sentiment and singable in their music. Their non-success is not due to any lack of theirs in these regards: "the boys" did not like them,—that is the all of this matter; and success with "the boys" is proved to be—by their fate—the test of their merit; and yet, because of their non-success, many a person infers—unjustly—that no good national hymns were made during these wars. A truer, juster inference may be this: that slow-moving national hymns, or chorals, are too slow for our national use; in evidence of which are these meritorious, yet unpopular, chorals.

If public opinion, which "the boys" apparently echo, were not in this condition, it would never tolerate the setting of Julia Ward Howe's *Battle Hymn of the Republic* to "the boys" tune for *We'll hang Jeff. Davis to a sour apple-tree*; it would pronounce against this wedding of such words as "Our God is marching on" to this tune, for being one that outdid in incongruousness any of the Salvation Army adaptations; as indeed it does outdo them. Compare it with the hymn beginning: "Come, ye sinners, poor and needy," set to the tune of *Yankee Doodle*,

Our Revolutionary fore-fathers piped, whistled, and sang this tune's lively strains; yet to equally lively thoughts and words, and not to those of a serious import. Nevertheless they had use for, and used, the stately *Hail Columbia*, though it has a voice-range so great as to render it unsuitable for all the people's use; because of which, and other musical features, it might be—and probably would be—shelved with the non-successful war-songs if offered the public nowadays.

The four songs cited above are characterised by a right robust, energetic rhythm; one which slugs, pounds itself into the memory; a square cut, trip-hammer pounding of the most self-assertive sort.

The tunes of *God Save the Queen* and of *The Star Spangled Banner* are not of this kind. A war-song candidate for present public favor hardly would succeed, though never so meritorious, if he cast his song in the $\frac{3}{4}$ rhythmic mould of these last-cited pieces.

Reasons for the rhythm of the English national hymn may be found in the poetic structure of the cry: "God save the queen!" which necessitates the use of its $\frac{3}{4}$ rhythm; this hymn having been written and then adapted to its melody, which was composed long before in Germany; and these reasons will apply equally well to *The Star Spangled Banner*.

Neither of these two songs is a marching-piece; all of the other four, herein cited, are altogether march-like, therein showing that this rhythm, in war-songs, suits the present public taste.

To induce the people to use a war-song, of choral form, new words set to old music—as in the cases of *God Save The Queen* and *The Star Spangled Banner*, doubtless would be more operative than new words to new music.

No grander, fitter tune could be selected for this purpose than that of *Old Hundred*; its perfect choral form, giving but one tone to each syllable, rendering it superior, in this regard, to the Austrian and Russian national airs. What American poet will immortalise himself by setting patriotic words to it? If there be no American poet who is equal to this task, then let our poets try to set lively, patriotic words—not hymn-words—to the music of *There'll be a hot time in the old town to night*, with the encouragement that, which ever one of them makes the best poetic adaptation to it, will be rewarded with an immediate and great national success; a success for which he might toil a life-time, along other poetic lines to attain, or, perhaps, never realise otherwise. The offer of a cash-prize for it, by some wealthy patriot, might arouse and stimulate poetic competition.

Quarrelling with the people, for liking such tunes as this, would be as profitless as for their liking the syncopative nibbles of rag-time. Giving the people words for them, which glow with love for country, is far better.

"The boys" of the army, navy; of the grocer-cart, butcher-wagon, news-stand, machine-shop, corn-field, and cattle-ranch, now sing of "a hot time."

Giving them a song of country, liberty, union, set to the "hot time" tune, would grandly help in teaching them those patriotic lessons which tend to fit them for American citizenship. If musical critics object to separating this tune from its original word-mate, let them consider the tonal expansion of the song entitled *America*, through the setting of the melody of the British national hymn to its words; an expansion which felicitously insinuates into English thought purely American ideas.

Such song-adaptations as these illustrate man's common spirit of fraternity, as do the declarations of the Golden Rule by Buddha and Confucius; and they suggest that the religious parliament idea may be universally fostered and practicalised through song-interchange, song-expansion; a song-interchange unhampered by song-critics; one of and for the common people of the whole world.

Emigrants, of different nationalities, sing together, on their passage to America, hymns, in their respective languages, which are set to the same tunes, fellowshipping in song though unable to talk to each other; and this song-union influences the singers in their subsequent American experiences.

In the war-song survivals there is a key to the conscience of the present common man,—under man; he who rejects the national chorals, though never so stately and effective, and coerces to his song-use the vocal favorites of "the boys." The truly human and humane philosopher (not a Nietzsche) will find it potent for unlocking, reaching and effecting man's edification from man's humble foundations—not downwards, from the Nietzschean spire and aspirations. The truly human, philanthropic philosopher will not hesitate to make a Salvation Army use of such music as this, in this edifying of the common man, by adapting to it sentiments of universal brotherhood; sentiments of world-wide reach and good will; sentiments which the world's religious parliament in all its wealth of theologic lore, must approve; because of its universally familiar and popular character; and, because, through singing, the world may be unified in heart and aim.

GOSPEL PARALLELS FROM PÂLI TEXTS.

Translated from the originals by ALBERT J. EDMUNDS.

I GAVE some facts about the pre-Christian antiquity of the Pâli Texts in a note in *The Open Court* for November, 1898. The question of Hindû ideas reaching Palestine is still on its trial. The interchange of thought between Greece and India was part of the programme of Alexander, who took Greek artists on his Eastern expedition. When his successors at Alexandria began translating the Old Testament, they were carrying out his cosmic plan. Diodorus of Sicily states this plan :

“[Alexander decreed] that there should be interchanges between cities, and that people should be transferred out of Asia into Europe, and conversely out of Europe into Asia, to the end that the two great continents, by intermarriages and exchange of good offices, might become homogeneous and established in mutual friendship.” (*Diod. Sic.* XVIII. 4).

The Alexandrian librarian pointed out to Ptolemy the lore of the Hindûs and others, while the court of Antioch set Berosus to translate the records of the Babylonians. The Old Testament was already in progress. Now, while the Greeks were thus translating the Sacred Books of the East, twenty-one centuries before Max Müller, Asoko was sending Buddhist missionaries into their empire. Why should not these two outreachings have met? Asoko boasts that his mission made headway. Even though the Buddhist oracles were still oral, they can have left traces among ascetics in Palestine and Egypt. The origin of the Essenes is still a mystery; but the semi-Christian Elkesaites, according to Hippolytus, came “from Seres of Parthia,” i. e. Buddhists. Hippolytus also tells us that the Docetæ taught that Christ came to abolish transmigration. Now, Gotamo says, on the first page of the *Itivuttaka*, the Buddhist Logia-Book: “I am your surety against return to earth.”

Joseph Jacobs has shown that Hindû fairy-tales were known in Palestine in the first century, and the Jâtaka stories represent their hero as being educated at Taxila, the centre of Indo-Greek learning. *The Questions of King Milinda* exhibit Buddhist schools of reciters, at the time of the Christian era, keeping up the sacred lore, which was enquired into by intelligent Greeks.

In the Book of Discipline, Gotamo predicts that his religion will last for five hundred years. Now these figures have been altered to five thousand in uncanonical works written after the time of Christ, i. e. after the five hundred years had expired. Therefore, the Book of Discipline would appear to have been untampered with since that date; and the Canon may well have been put into its written form about 90 B. C., as the Ceylon Chronicles state.

These remarks are the summary of an essay, giving full references, the result of years of research. No borrowing is alleged on either side—Christian or Buddhist—in these Parallels. We offer no theory, but present them as facts. They at least belong to a world of thought which the whole East had in common.

THE CHRIST REMAINS [ON EARTH] FOR THE ÆON.

John xiii. 34. Udâna VI. 1; and Book of the Great Decease, p. 23. (Translated in S. B. E. XI. p. 40).

[This is not a New Testament doctrine, but a current belief at the time of Christ. Commentators have been at a loss to identify the Old Testament passage which is supposed to be quoted. *The Twentieth Century New Testament* proposes the Aramaic version of Isaiah ix. 7 as the source. Be that as it may, we have here a verbal Pâli parallel.]

Ânando, any one who has practised the four mystical methods—developed them, made them a vehicle and an aim, pursued them accumulated, and striven to the height thereof,—can, if he so should wish, *remain* [on earth] *for an æon* or the rest of an æon. Now, Ânando, the Tathâgato has practised and perfected these; and if he so should wish, *the Tathâgato could remain* [on earth] *for an æon* or the rest of the æon.

[The words in italics agree with those in the Greek of John, except the mood and tense of the verb. Rendel Harris has pointed out to me that the tense of *μενει* is ambiguous, being either present or future. This is because the manuscripts are without accents. *Tathâgato* is a religious title equivalent to Christ. Its exact meaning is doubtful.]

FEW THAT ARE SAVED.

Matth. vii. 13, 14; Luke xiii 23, 24. *Aṅguttara Nikāyo* I 19 (Not before translated).

Monks! just as, in this India, there are only a few pleasant parks, groves, landscapes, and lotus-ponds, but far more of broken ground, impassable rivers, tree-stumps, thorny roads, and rugged rocks: so also, monks! there are few beings who, when vanished from the human, are born again among humans; but far more who, when vanished from the human, are born again in hell, in the wombs of brutes or the haunt of ghosts; few who are born among the angels, more who are born as I have said. And there are few beings, O monks! who, when vanished from the angelic, are born again among angels, but far more who vanish from the angelic to be born again in hell, in the wombs of brutes or the haunt of ghosts.

ASCENSION.

Udāna VIII. 9. (Not before translated).

This story is more analogous to the ascension of Elijah in the Second Book of Kings than to that of Christ, as related in the first chapter of Acts. There is no account of the Ascension in the Synoptical Gospels, except a single line in Luke xxiv. 51,¹ while the Mark Appendix is a later addition. John refers to the Ascension as a spiritual fact; so does Paul; but the only pictorial account is that of Acts. In the Pāli legend, the hero is Dabbo the Mallian, a disciple of Buddha's who had extraordinary psychical powers. The Book of Discipline tells us that he was able to light the monks to bed by emitting magnetic flames from his fingers. See *Sacra Books of the East*, Vol. xx., p. 7.]

Thus have I heard. At one season the Blessed One was staying in the Bamboo Grove beside the Squirrels' feeding-ground, at Rājagaha. And the venerable Dabbo the Mallian approached the Blessed One, saluted him and sat on one side, and so sitting, said to him: "O Auspicious One, my time is at hand to enter Nirvāṇa."²—"Whatever you think fit, O Dabbo."—Then the venerable Dabbo the Mallian rose from his seat, saluted the Blessed One, and keeping on his right hand, went up into the sky, and sat in the posture of meditation in the ether, in the empyrean. Intensely meditating on the nature of flame, he ascended and passed into Nirvāṇa.

¹ The doubt thrown upon this line in the margin of the Revised Version of 1881 was dispelled when the Sinai Syriac was found.

² See my defensive note on this rendering in my translation of Digha 14. (*The Marvellous Birth of the Buddhas*: Philadelphia, 1899, p. 4.)

And when the venerable Dabbo the Mallian had thus gone up, meditated and ascended, there remained neither ashes nor soot of his body when passed away,¹ consumed and burnt. Even as, when ghee or oil is consumed and burnt, neither ashes nor soot remains, so was it with the body of the venerable Dabbo the Mallian. And forthwith the Blessed One, having understood the fact, gave vent on that occasion to the following Udâna:

"The body dissolved, perception ceased, all sensations were utterly consumed;

"The constituents of existence were stilled, consciousness and sense departed."

SUPERNATURAL BIRTH.

Luke i. 35. Majjhima Nikâyo, Sutta 38. Quoted in *The Questions of King Milinda*, p. 123, but *not* translated in *S. B. E.* XXXV.

Conception takes place, O monks, by the union of three. In this world the father and the mother are united. The mother may be capable, but the genius (*gandhabbo*, Sanskrit *gandharva*), may not be ready. It is by the union of these three, O monks, that conception takes place.

[Neumann, in his German translation, expands the text here, perhaps from the commentary.]

THE SAVIOUR IS UNIQUE.

John i. 14 and 18 ("only begotten";) Hebrew ix. 26 ("once, at the end of the ages.")
 Ânguttara Nikâyo I. 15.

It is unlikely and impossible, O monks, for two Arahats who are perfect Buddhas to arise simultaneously in the same world-system: this is not likely. But it is likely, O monks, for one Arahata who is a perfect Buddha, to arise in one world-system: this is quite likely.

[A similar statement is made of an emperor;² and then it is denied that a woman can be a Buddha, an emperor—strangely contradicted by fact—a Sakko, a Mâro, or a Brahmâ.]

SAVING FAITH IN THE LORD.

Luke xxiii. 42, 43. Majjhima Nikâyo, Sutta 22.

Thus, O monks, is the Doctrine well taught by me—plain, patent, clear, and with the old cloth cut away.³ Seeing, O monks,

¹ Or, *passed into Nirvâna*, as above. It is a special word, only used for the death of an Arahata.

² I was interested to learn lately from the lips of a Hindu that the ancient title *chakkavatti* applied to-day to the Queen of England as Empress of India.

³ Cf. Mark ii. 21.

that the Doctrine is thus well taught [etc.], all those who have merely faith and love toward me are sure of Paradise hereafter.

HE WHO SEES THE TRUTH SEES THE LORD.

John xiv. 6 and 9.

Itivuttaka 92.

O monks, even if a monk should gather up the folds of his robe and follow behind me, treading in my footsteps, yet if he be covetous, on lusts intent, bad-hearted, corrupt in his mind's aspiration, heedless, mindless, ill-conducted, with heart confused and unripe faculties, then is he far from me, and I from him. And why? Because, O monks, that monk sees not the Doctrine; and he who sees not the Doctrine sees not me. But if that monk should dwell an hundred leagues away, O monks, and be not covetous, nor intent on lusts, not bad-hearted nor corrupt in his mind's aspiration, but heedful, mindful, well-conducted, with concentrated heart and faculties restrained, then is he near to me, and I to him. And why? Because, O monks, that monk sees the Doctrine; and HE WHO SEES THE DOCTRINE SEES ME.

[The word *Doctrine* is the ubiquitous *Dhammo*, Sanskrit *Dharma*; and can be equally well translated *Truth* or *Religion*.]

MISCELLANEOUS.

EROS AND PSYCHE.

The story of Eros and Psyche reflects the religious life of classic antiquity more than any other book, poem, or epic, not excepting the works of Hesiod and Homer, who are said to have given to the Greeks their gods. The Theogony describes the origin of the gods and gives to them a definite shape. Homer introduces their figures into his grand epic; but the popular tale of Cupid and Psyche reflects the sentiment with which the gods were regarded, and describes the attitude of man toward the problems of life, especially the problem of problems—the mystery of death and the fate of the soul in the unknown beyond.

The orthodox Greek religion consisted in the performance of certain rites which were attended to by priests in the name of the state, and for the public benefit. Neither faith nor morality was required, but it was of paramount importance to give all the gods their due according to established tradition and thus to fulfil the duties that men may have toward the invisible powers, upon whose beneficence their welfare depends. But the performance of sacrifices and other ceremonies left the heart empty; they were attended to in a perfunctory way by persons duly elected either according to descent or station in life and were kept up simply from fear lest any deity might be offended by the neglect. The personal attitude of the people demanded a satisfaction of the religious cravings of their hearts which resulted in a religious movement originating with the importation of new thoughts from Egypt, Chaldaea, Phœnicia and Syria, and finding at last a definite expression in the mysteries and secret teachings of Orpheus, Dionysus, Demeter, and other deities. These innovations were not revolutionary. New gods, it is true, were introduced such as Dionysus, and new prophets such as Orpheus, but the old ones remained in power; the change was not in name, but in interpretation; as such, however, it was none



EROS AND PSYCHE TOGETHER WITH THE
GOOD SHEPHERD.¹
(Pagan Sarcophagus.)

satisfaction of the religious cravings of their hearts which resulted in a religious movement originating with the importation of new thoughts from Egypt, Chaldaea, Phœnicia and Syria, and finding at last a definite expression in the mysteries and secret teachings of Orpheus, Dionysus, Demeter, and other deities. These innovations were not revolutionary. New gods, it is true, were introduced such as Dionysus, and new prophets such as Orpheus, but the old ones remained in power; the change was not in name, but in interpretation; as such, however, it was none

¹ Reproduced from Kraus, *Geschichte der christlichen Kunst*, I., p. 102.

the less radical, for the very nature of the old gods underwent a thorough transformation and gained a deepening of their religious significance.

Nor is it difficult to describe (at least in its main outlines) the character of these innovations for they are obvious and unmistakable, because they became the chief factors in the formation of the Greek type in its classic period and left their imprint upon all philosophers and poets as well as upon the public life of ancient Hellas. The great problem of Greek thought was the riddle of the sphinx finding its solution in Greek conception of man's soul as worked out by Plato.

How much Plato again and his doctrines affected Christianity is well known and so we may in the evolution of religion regard the hopes and dreams of the Mysteries, especially the Eleusinian Mysteries as one of the most important preparation of and transition to Christianity.

All these views found expression in the fairy tale *Eros and Psyche*—the only fairy tale of ancient Greece that has come down to us in the bizarre satirical romance of Apuleius, *The Golden Ass*. A symptom of the consanguinity of the ideas that pervade the story of Eros and Psyche and the rising belief of Christianity may be found in the fact that the Christian emblem of the good shepherd was chiselled on a sarcophagus side by side with the figures of Eros and Psyche.

We offer the story to our readers in a new version for the sake of its religious significance and reproduce with it Paul Thumann's beautiful illustrations which in their spirit are as genuinely classic as any production of Phidias or Praxiteles.

Paul Thumann's illustrations were published for the first time by Adolf Titzel, of Leipsic, a publisher whose firm is justly famous for high class work in illustrating classics.

P. C.

THE INTERNATIONAL CONGRESSES AT THE WORLD'S EXHIBITION AT PARIS, IN 1900.

It must be gratifying to the inaugurators and promoters of the Chicago World's Congresses that the French Exhibition will follow its precedent and carry out the same idea, with such modifications only as will be necessary in a country where European customs and principles prevail. There will be a series of congresses with most fascinating programs, worked out by scholars and capable men, and directed with discretion. The religious congress will not resemble the Chicago Parliament of Religions, in so far as it will not be a congress of representatives of the various religions now living, but a convention of scholars, especially of Orientalists, who as students of the history of religions will discuss the subject purely from a theoretical point of view, and without any reference to the practical questions of to-day. The president of the religious congresses is Prof. A. Réville, Nouville Dieppe, Seine-Inférieure, France.

The sections of the Congress of the History of Religion are eight in number and will be divided according to the requirements of the hour into sub-sections. The main eight sections are as follows: (1) Religions of non-civilised peoples. The religions of the pre-Columbian American civilisations. (2) History of the religions of the far Orient (China, Japan, Indo-China, Mongolia, etc.). (3) History of the religions of Egypt. (4) History of the so-called Semitic religions: (a) Assyria, Chaldæa, anterior Asia; (b) Judaism and Islamism. (5) History of the religions of India and Persia. (6) History of the religions of Greece and Rome. (7) History of the religions of the Germans, Celts, and Slavs. Pre-historic archæology

of Europe. (8) The history of Christianity, subdivided into the history of the first centuries, the history of the Middle Ages, and the history of modern times.

Supporters of the Congress who will subscribe the sum of ten francs will receive gratuitously the printed reports of the meetings and the various publications of the Congress. All communications intended for the Congress should be sent to the secretary before the first of July, 1900; they may be in either French, German, English, Italian, or Latin. The secretaries are MM. Léon Marillier and Jean Réville, the Sorbonne, Paris, to whom applications for prospectuses giving full details should be sent.

The philosophical congress is also in very good hands. Its secretary is M. Xavier Léon, the able editor of the *Revue de métaphysique et de morale*, and its president M. Boutroux, a member of the Institute and professor of philosophy at the Sorbonne. They will be assisted by a number of the most prominent professors and savants of France.

The program has been carefully worked out, and shows that the man who devised it is a systematic thinker.

The work of the philosophical Congress will be divided into four sections: I. General Philosophy and Metaphysics; II. Ethics; III. Logic and the History of the Sciences; and IV. The History of Philosophy Proper. Here are the details of the Program:

I. General Philosophy and Metaphysics. This section is divided into the following subjects: (1) Science and metaphysics. Can the sciences be reduced to unity? (2) The nature of the fundamental psychical fact; (3) The unity and identity of the ego; (4) The connexion of space-conception with the concepts of the mind; (5) Liberty and determinism; (6) Monism and dualism; (7) The relativity of knowledge; (8) The unknowable; (9) The problem of finitude; (10) The different forms of contemporary idealism; (11) Rationalism and faith; the rôle which the will plays in opinions; (12) The categories; (13) Is a common terminology for all philosophers possible?

II. Ethics: (1) Can a moral doctrine be established without metaphysics? (2) Can a moral education suffice for the mass of the people without falling back on religious beliefs? (3) The relation of Christian morality to the contemporary conscience; (4) Is a moral sanction possible or at all necessary? (5) The aim of civilisation; (6) War and peace; is it possible to suppress war? (7) The individual happiness and social interest; (8) Morals and politics; (9) Is the basis of justice individual or social? (10) Solidarity; (11) Cosmopolitanism; (12) The casuistries in morals; (13) How far is the social question a moral question? (14) Philosophical sociology and scientific sociology; (15) Conditions of responsibility in the social and moral order.

III. Logic and the History of the Sciences (A): (1) The algebra of logic and calculus of probabilities—Theory of ensembles; theory of concatenations; theory of groups—The transfinite; (2) Principles of analysis: number, the continuum, theory of functions; (3) Postulates of geometry; their origin and value—Intuition in mathematics—Non-Euclidean geometry; (4) Methods of geometry; analytical geometry; projective geometry; geometrical calculus (quaternions); (5) The principles of mechanics, their nature and value; (6) Methods of mechanical physics; theories of errors and approximations; (7) General hypotheses of physics; mechanical theory of energetics; (8) The hypotheses of chemistry; the constitution of matter—The atomic theory; stereo-chemistry; (9) The problem of the origin of life; (10) Theories of the evolution of the species; transformism; heredity. (B):

(1) The foundation of the infinitesimal calculus ; (2) The genesis of the conception of imagination and the progressive explanation of the theory of functions ; (3) The history of the discovery of Newtonian gravitation, and its influence on the development of mechanics and physics ; (4) An exposition of the necessities which led to thermo-dynamics, the conservation of energy, the principle of Carnot-Clausius etc., etc. ; (5) The history of biological methods.

IV. The History of Philosophy : (1) The aim of the method of the history of philosophy ; (2) Progress in the history of philosophy ; (3) Can the study of ancient philosophy be made useful ? (4) The place of the sophists in Greek philosophy ; (5) Can the historical evolution of the ideas of Plato be determined ? (6) The principles of natural science in Aristotle ; (7) The idea of evil in Plotin ; (8) The value of Scholasticism ; (9) The place of Descartes in the general history of thought ; (10) Spinoza and Leibnitz ; (11) The rôle of Hume's philosophy in the development of modern thought ; (12) Kant's criticism and psychology ; (13) Fichte's ethics ; (14) Hegelianism in actual philosophy ; (15) The tendencies in contemporary philosophy.

POPULAR MUSIC.

The present number of *The Open Court* contains a short article by C. Crozat Converse, a well-known American composer of both choral and popular music, in which he presents his views on the rise of popular songs and the non-acceptability of noble melodies to the American public. The general conclusion, although not expressed in words, seems to be very saddening, for it would indicate that we shall never have good national hymns or an elevating popular music. The cause of it lies in the paramount influence which the broad masses of the people exercise in America.

This is a feature of American life which has been pointed to again and again with great satisfaction by representative champions of European systems of government. The truth is that the masses of the people are, and always will remain vulgar. If their taste shall decide in matters intellectual, we cannot expect that America will be productive of anything good in any line of progressive work. If the democracy of a republic means that the majority shall dominate, then there is no prospect here for the artist, the scientist, the philosopher, and the poet.

Republicanism does not mean that the majority shall rule. The laws shall rule and the government shall administer the laws. The majority has the right only to decide who shall be entrusted with the work of administration.

Republicanism removes the rule of princes and abolishes prerogatives of an aristocratic minority, but it should neither endow the majority with sovereign power, nor should it abolish the functions of an aristocracy. The rule of the majority would be not less a misfortune than the elimination of aristocratic influences. American progressiveness has shown itself first of all in the useful arts, in feats of engineering of all kinds, in the enhancement of mechanics, and American inventiveness is mainly limited to that which is of immediate practical use, such as labor-saving machinery, locomotives for heavy traffic or rapid transit, etc.

Our art critics have pointed out that American art and poetry are lacking in originality and depth ; they are sometimes powerful, but rarely noble and elevating. As a rule, they appeal to the masses, and not to the taste of the cultivated few. Most of the plays performed at our large theaters are stale and unprofitable ; they are more shows than dramas ; they are not a development of action and thought but exhibitions of scenic effects and of gaudy dress. The question has

often been raised how this unhappy state of affairs can be mended. We have not the slightest doubt that the conditions will be improved, and they may follow the law of evolution, that is to say, the course of progress will begin with an attention to the immediate and most pressing needs of practical life, proceeding to the higher but not less important domain of intellectuality.

The advance of American civilisation shows that to a great extent a development for the better has set in. The foundation of great universities is a step in this direction. And endowed theaters which shall set the standard of musical and poetical taste will be added in time. Endowed newspapers which should be started on a limited basis, perhaps in the form of weeklies, will have to follow. As a matter of course, they must be rigidly non-partisan, and take the ground of a purely ethical point of view.

The musical and artistic taste of the masses is not worse here than in Europe. The war songs that were actually sung in the German army, both in 1813-1815 and 1870-1871, were by no means the classical music of later days. The German warriors did not sing either Koerner's or Arndt's songs, but ragtime-melodies, with words of the coarsest character. It is a fact still that the officers of the German army have great trouble with the singing instinct of the private soldiers, generally venting itself in songs which not only betray a lack of musical taste, but also abound in rudities and even shocking indecencies. The regulations in the German army enjoin officers not to permit such breaches of good behavior; but, nevertheless, partly through connivance, partly through actual encouragement on the sly these songs spread like wild-fire. But these songs do not become known outside of the army and the elevating songs of the German nation are produced and known in a radically different atmosphere.

We may here on American soil allow public opinion to be too much dominated by the taste of "the boys," but this consideration exercises perhaps an educational influence on them, and may in time serve as a leaven that will raise the masses to a higher musical understanding.

I see no cure for the vulgarity of our national taste in music and other arts than by the foundation of independent art centers which would be looked up to as an authority, and thus organise the better elements constituting an intellectual aristocracy,—an aristocracy which is not based upon ancestry, but upon intellectual and moral superiority.

P. C.

LIFE AFTER DEATH. A COMMENT ON HOFFMANN'S STORY OF "TANTE FRITZCHEN."

To the Editor of The Open Court:

"It is awful, when two grow apart so and one of the two has to realise and know it. O God, I am tired, and want to sleep, just to sleep!" (*Tante Fritzchen*, Hoffmann.)

To those who cannot believe in a revelation, the position taken by "Tante Fritzchen" which so shocked the good pastor, will assume less or more importance, according to their intellectual environment. The sea of opinion will have no beaten path for such to pursue. Each, from Hans Hoffmann's story as a centre, may move out on one of as many lines of reflexion as a circle has radii.

But, to those who believe in a revelation,—let it be made through a carpenter under the shadows of Lebanon, or through a prince of the plains under the Himalayas, or through a shepherd of Sinai, or a camel-driver of Arabia,—the

whole matter of the questions so shrewdly raised becomes more simple. Each has only to quote from records he holds to be sacred, and to show that no known fact or truly scientific deduction is controverted by his "scripture." If the "scripture" one holds as revelation does not agree with the "scripture" another holds as revelation, it is a cause for worry and indecision only to yet another who holds neither or revelation.

The assumption made by the Carpenter of Nazareth that HE KNEW, is forced as truth upon the mind of the writer,—by training, by "intellectual environment," and by a study that has led to the conclusion that the Man of Nazareth spake as never any other man before or since has spoken.

First:—The recognition by John, and James, and Peter, of the spirit companions of Jesus on the Mount of Transfiguration,—is evidence that the mental compass or range of intuitive faculties, when the sphere of the now unseen world; entered, will be enlarged to a proportion perhaps limited only by the capacity of the individual personality.

Second:—The recognition of himself called for by Jesus in the interval between his resurrection and his ascension, has only a limited significance, and that only to those whose mental capacity cannot fathom a concept without sensual accompaniment,—such as sight, touch, hearing. He was "not yet ascended,"—so his bodily appearance had no necessary relation to the ordinary life after death whose possibility and environment is in question. And moreover, he exercised personal power which was sufficient to prevent or call for recognition at his will.

Third:—The exact words of Jesus, in description of this after-life are: "They are as the angels in heaven." He also, in a parable, used to, more or less poetically, clothe a truth he sought to impress upon his hearers, spoke of "a great gulf fixed," that divided certain of the dead from others whom they knew when on earth.

Fourth:—To the Sadducees, who said "there is no resurrection, neither angel, nor spirit," Jesus went beyond his mere assertion, and gave what he considered would be to them an unanswerable argument; "That the dead are raised, even Moses shewed at the bush, when he called the Lord the God of Abraham, the God of Isaac, and the God of Jacob. For he is not the God of the dead, but of the living."

According therefore to the revelation of the law-giver of Sinai, and of the carpenter of Palestine, there is an awakening after death that leads to recognition of one another and a satisfaction, that has no relation to youth or age, scars or wrinkles, earth's "forty-five years" or cycles of time. "Many of them that sleep in the dust of the earth shall awake, some to everlasting life, and some to shame and everlasting contempt. And they that be wise shall shine as the brightness of the firmament." (Daniel xii, 2.)

Nevertheless, the Athenians are not yet extinct, who, "when they heard of the resurrection of the dead, some mocked; and others said: We will hear thee again of this matter." (Acts xvii, 32.)

DANVILLE, VIRGINIA.

REV. J. CLEVELAND HALL.

THE CROSS IN "JAPANESE HERALDRY."

To the Editor of *The Open Court*:

I read with interest the article in your December number on *The Cross in Japanese Heraldry*, but I was astonished to read the author's statement regarding

the "Manji," viz. that its use by Christianised Japanese nobility is a conclusive proof of its Christian origin. This statement is absolutely incorrect. Whatever Christianity the Manji may have is due to adaptation from sources similar to those whence you trace the analogies in the histories of Nativities in your concurrent article thereon. The Manji is an emblem whose use as a solar, and possibly lunar, representative can be retraced to the fourteenth century B. C. having been frequently found by Herr Schliemann among Trojan remains, and described in his work *Ilios*. Moreover this Manji is merely another name for the Swastika of India, concerning which much has been written; I believe it is mentioned in the Ramayana as being painted on the bows of Bharat's fleet, and it is shown in the *Archeological Survey of India*, vol x, plate 2, fig 8, as being on a coin of Krandana, supposedly the oldest Indian coin.

This emblem is also known as the Cross gammée, and as the gammadion, and could pile Pelion upon Ossa in proofs not only of its pre-Christian but almost of its prehistoric existence.

Should any reader wish to look into the history of this deeply interesting emblem, I recommend for valuable assistance the *Migration of Symbols*, by M. le Comte Goblet D'Alviella, Senator of the Royal Academy of Belgium, and also *The Svastika*, by Mr. Thos. Wilson, Curator of the Department of Prehistoric Anthropology at Washington, D. C.

LOWELL, MASS.

N. W. J. HAYDEN.

BOOK NOTICES.

TALKS TO TEACHERS ON PSYCHOLOGY: And to students on some of Life's Ideals. By William James. New York: Henry Holt & Co. 1899. Pages, xi+301.

Prof. William James has written a characteristic production in his *Talks on Psychology and Life's Ideals*. The addresses abound in practical insight and unconventional wisdom, and have far more value for teachers than many of the ponderous tomes of the psychological Dry-as-Dusts. The scant pedagogical outcome of the ultra-technical psychological research now in vogue, the great importance of motor elements in education, the function of reactions, the laws of habit, the association of ideas, the factors of interest, attention, memory, apperception and will, are all delightfully and, in the main, soundly emphasised. In the section, "Talks to Students" the essay on "The Gospel of Relaxation" which is an appeal to the American public, recommends a species of diluted Yoga-practice, a descending at intervals to the non-thinking level, an absorption in the supreme felicity of the sensorial life. Here, too, is the source of much genuine philosophy, Professor James thinks; and it is his essay "On a Certain Blindness in Human Beings," which treats of this topic, that he likes best. The essay is a gospel for life's sake a gospel of a subjective criterion of all ethical values, a levelling of all the standards of ideality to individual sentiment, culminating in the assertion that "the truer side is the side that feels more, and not the side that feels less." On this, his individualistic and polymorphic philosophy, Professor James lingers with loving emphasis.

We should like to quote, if space permitted, some of the many apt and trenchant passages which Professor James's book contains; but we must content ourselves with saying that serious readers of all professions cannot fail to find in it stimulating and ennobling thoughts.

One of the latest issues of the *Bibliothèque de la revue générale des sciences* published by G. Carré and C. Naud, (Paris, 3 rue Racine), is a cheap but very elegantly bound volume of oddities and fancies from the history of mathematics in France during the seventeenth and eighteenth centuries. The title of the work is *Opinions et curiosités touchant la mathématique*, and the author is Georges Maupin, member of the Mathematical Society of France. The following are the author's and sources of a few typical selections: Orontius Finaeus, Bovelles, Montaigne, Pascal, the geometry of Port-Royal, Lamy, Ozanam, Sauveur, Bossuet, D'Alembert, etc. There are several good illustrations which include a portrait of Orontius Finaeus (1556) and the frontispiece to a work by Barrême (1671). Many of the extracts are interesting from the point of view of the history of civilisation, one for instance being the question discussed in the Academy in 1667, as to the character of the studies which were fit to be pursued by women,—a subject which is referred to more than once in the book. Most of the space is taken up by certain classical solutions of the squaring of the circle; the collateral pursuit of medicine and geometry is illustrated by an extract from a production of 1586; there is a proof of the existence of God, deduced from a consideration of asymptotic spaces by a Jesuit, Pardies, etc., etc. Upon the whole the book has a decidedly educational value, in addition to its antiquarian importance.

Those who desire a sound and instructive discussion of the history and principles of the municipal administration of American cities, may turn profitably to a recent work entitled *The Government of Municipalities*, by Dorman B. Eaton, a man whose name has been known for many years as that of a distinguished civil service reformer, and whose very recent death is to be greatly lamented. The first portions of the volume are historical and critical. "In the midst of the vast contrariety and confusion of our hastily devised municipal constructions," says Mr. Eaton, "I have felt the need of a definite plan and theory of city government,—carefully considered on the basis both of principle and experience,—and I have therefore presented such a plan, well knowing, however, that it would encounter fewer objections if it were less definite and therefore less useful for its purpose. Besides, it seems to be essential for our municipal betterment, to bring our indefinite municipal thinking—or lack of thought—and our manifold partisan schemes, of city domination for party and sectarian advantage, to the test of a definite kind, and organisation of city government, having its principles defined and its methods organised in the interests of the people and not of any party or sect." (New York: Macmillan Co. Pp. 408. Price, \$4.00.)

In two good-sized volumes published by The Macmillan Co., Mr. Gamaliel Bradford has traced through the intricate mazes of history *The Lesson of Popular Government*. Such subjects as universal suffrage, the general theories of democracy, the histories of popular and cabinet government in Great Britain, the history of France, public finance, the spirit of party and government in our legislature, are treated in Vol. I. In Vol. II., the history and theory of state governments is considered, Massachusetts and New York having been taken as the type, and the general theory of city governments in America examined and criticised. The key-note of the work is this: That while the principles of the government and the character of the people of the United States, despite their motley ethnological composition, are still sound and reliable, "some modifications and readjustments of the machinery must take place, unless we are to drift through practical anarchy and increasing

corruption to military despotism." The work concludes with an apt quotation from an English writer that "the failures of government in the United States are not the result of democracy, but of the craftiest combinations of schemes to defeat the will of democracy ever devised in the world." The price of the book is \$4.00.

Allen Walton Gould, who has done so much for the literature of children by publishing a series of nature studies which appeared in the form of a periodical, and was, if we are not mistaken, republished in book form, has made another venture of a similar kind, entitled, *The Child's World in Picture and Story*. Four numbers lie before us, which are extremely interesting, and adapted as literature for children of from ten to fifteen years. It is neatly and thoughtfully illustrated, the first number being dedicated principally to "houses of silk" as built mainly by moths, spiders, in trees, under ground, and under water. The second number treats of "houses of paper," explaining the paper-like cells of the wasp. Next come "houses of wood," built by seeds, (the pea building its pod, etc.) by birds and ants; in addition, the beavers' dams are illustrated and discussed. The fourth number is dedicated to "houses of clay" built by various insects, in comparison to whose work the mound builders are alluded to. The illustrations are carefully selected so as to be instructive, and to render the articles more interesting. Price, \$1.50 per year, five cents per single copy.

The Macmillan Company began in January the publication of a new periodical entitled, *The International Monthly; A Magazine of Contemporary Thought*. The type of the *Monthly* is that of the more serious English and American reviews, with the exception that in the present case a thorough-going popular presentation of topics is aimed at. The editorial management is conducted by Mr. Frederick A. Richardson, assisted in each department by an advisory board consisting of distinguished representatives of science, literature and art, in America, England, Germany and France. The contents of the January number are as follows: Later Evolutions of French Criticism, by Edouard Rod, Paris; Influence of the Sun upon the Formation of the Earth's Surface, by N. S. Shaler, Harvard University; Organisation among American Artists, by Charles De Kay, New York; Recent Advance in Physical Science, by John Trowbridge, Harvard University; The Theatrical Syndicate, by Norman Hapgood, New York. Price, \$3.00 a year. Single copies, 25 cents.

Fords, Howard, and Hulbert, of New York, have issued a collection of the addresses delivered at the semi-centennial Jubilee of Plymouth Church, Brooklyn, in November, 1897. The title of the collection is *The New Puritanism*, and the addresses are mainly concerned with the significance of the career of Henry Ward Beecher, and of the work of Plymouth Church. Their tone is that of a liberalised, but militant, Christianity, which still remains true to the stern ideas of Puritanism as adapted to the changed condition of modern life. The authors of the addresses are: Lyman Abbott, Amory H. Bradford, Charles A. Berry, George A. Gordon Washington Gladden, and William J. Tucker. (Pages, 275. Price, \$2.25.)

Dr. Hermann Schubert, Professor in Hamburg, Germany, and well known in the educational world for his text-books of elementary mathematics, has just published a second edition of his *Exercises in Arithmetic and Algebra* (*Aufgaben aus der Arithmetik und Algebra für Real- und Bürgerschulen*. Potsdam. 1899

A. Stein). The new edition has been entirely recast, and is published in three forms: (1) With answers; (2) Without answers; and (3) With the answers separate. The examples are systematically and logically arranged, and would be especially valuable for the use of teachers in preparing examinations. The collection will be in two volumes. (Price, 1 Mark 70 Pf. each).

A *Syllabus of the Lectures on Vertebrata* delivered by the late Prof. Edward D. Cope in his courses at the University of Pennsylvania have recently been published by the University. Professor Cope was one of the most distinguished scientists that America has produced, and Professor Osborn, who writes his biography in the present volume, ranks him as a comparative anatomist, both in the range and effectiveness of his knowledge and ideas, with Cuvier and Owen. There are many illustrations in the work and a portrait of Professor Cope. Price, cloth, \$1.25

The International Folk-Lore Association, of Chicago, has issued the first authentic collection of *Tales from the Totems of the Hidery*. The collector of the tales is James Deans a well-known geologist and ethnologist, who prepared for the World's Fair an anthropological exhibit representing the modes of life of the Hidery Indians of North-west British America,—an exhibit now to be seen in the Field Columbian Museum, at Chicago. The book is published in good form, and with illustrations.

The publishing house of Otto Hendel, of Halle, Germany, has just issued in their *Bibliothek der Gesamt-Litteratur* a new edition of Immanuel Kant's *Critique of Pure Reason*. The editor is Dr. Karl Vorländer who has supplied an introduction and a carefully compiled index. The text is that of the second edition of the *Critique*, published in 1787. The price of the volume bound is 3.25 marks only.

NOTES.

We have just been informed of the death of the Hon. John B. Stallo, which took place on January 6th, at his residence in Florence, Italy. He was one of the most prominent philosophers of this country, and combined in his person the rare qualities of a thorough knowledge of the exact sciences with an unusually clear and logical judgment, which had been sharpened in his profession as a lawyer and judge. He served as United States Minister to Italy under Cleveland's administration, and remained in that country after his resignation. His American home was Cincinnati, Ohio.

Professor Mach writing from Vienna, says: that his great book, *The Concepts of Modern Physics* is far too little known and appreciated, at least in Germany and he adds "perhaps I might succeed in causing a German translation of his main book to be made and brought out here." Professor Mach, who has for two years been in correspondence with the American thinker, adds that his career too was very remarkable.

The National Pure Food and Drug Congress will hold its third annual meeting in Washington at the Columbian University, beginning their sessions on Wednesday, March 7, 1900.



THE CROSSING OF THE STYX.

After the painting by A. Zick.

The Open Court, March, 1900.

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EROS AND PSYCHE.

RETOLD AFTER APULBIUS.

[CONCLUDED.]

THE PUNISHMENT OF GUILT.

POOOR Psyche wrung her hands in despair. Her first thought was to make a speedy end of her misery and so she ran to the river and threw herself into its waters. The water nymphs, however, took pity on her. Bearing up her body, they carried the gentle wife of Eros to the opposite shore. There on a rock sat Pan, the shepherds' god, playing his flute. Seeing the despair of the fair damsel, he came to the river bank and asked what he could do for her; and when she refused all help he said: "Poor girl! You look as if you had been thwarted in love. Be not despondent, but implore the help of Eros; he will listen to your prayer and grant your secret wishes, for he is a friend of all lovers."

Psyche thanked Pan for his good advice, and whispering a prayer to Eros rushed forth,—up the mountain and down the mountain, over stony ledges, past crags and rocks, through narrow passes everywhere surrounded by a wilderness full of brambles and thistles and thorns. The animals of the forest, the deer, the squirrels and the birds of the air served her as guides. At last, she reached the waving wheat fields on the far side of the mountain, where the country is dotted with the homes of men. She sought the palace of her aged father; but both her parents had died and she was now a lonely helpless orphan. After a long and wearisome journey she arrived broken-hearted and footsore at the residence of her eldest sister, Megalometis.

Having asked for admission, Psyche was at once ushered into the presence of the Queen and related to her the story of her mis-

fortune, saying: "I acted on the advice you gave me and was determined to slay the monster with a sharp knife, when behold, I saw by the light of my lamp that my husband was not a voracious beast, but Eros, the God of Love himself. I might still have avoided the evils of my perversity had I at once extinguished the lamp and



thrown away the dagger; but I was so enraptured with the sight that I could not help gazing at the beautiful features of the youthful god; and as I gave myself up to my ecstasy I carelessly allowed some hot oil to drip on his shoulder. He has now discarded me as unworthy of his love, and taken flight never to see me again."

Megalometis pretended to be greatly agitated, but inwardly rejoiced and thought to herself: "Eros being disgusted with Psyche will look for another consort and will gladly select a sister of Psyche who is as beautiful as his first partner, but will be more prudent than this silly child."

Suppressing her secret satisfaction, she plied the unfortunate woman with cunning questions as to the interest which her lover had evinced in his sisters-in-law and became confirmed in her belief through the answers she received, that Eros had known of their plans and might have prevented the catastrophe if he had



cared much for Psyche. Apparently he was ready for a new bride, and so she determined to approach him with vows of love. She dismissed Psyche, advising her to seek assistance at the home of her second sister, and began at once to erect a temple to be devoted to the god of lovers. But the old King, the husband of Megalometis, was extremely jealous, and surprising her once at the altar praying for the requital of her passion, he grew angry and without waiting for any explanation of her imprudent prayer, slew her on the spot.

Psyche was received with similar hypocritical kindness by Baskania, who secretly cherished the same hopes as her eldest sister.

She too felt assured that having rejected Psyche, Eros would gladly enter into a new alliance. And having not the slightest doubt that she with that extraordinary fascination which made her charms irresistible whenever she wished to captivate the fancy of a man, would be acceptable to the young god, Baskania journeyed to the place where the monument had been erected in commemoration of Psyche's sacrifice, and having ascended the rock, she lay down and exclaimed: "Receive me, Eros, as a wife worthy of thee; in me thou canst trust; I shall never betray thee!"

When the breeze of the evening wind made her hair flutter, Baskania rose and, standing close to the brink of the precipice, shouted: "Zephyr, be thou my messenger and carry me to thy master." She bounded into the air, as she had done before when about to visit Psyche, but this time, the gentle Zephyr was not



present to receive her, and she fell headlong from the mountain and perished miserably at the bottom of the abyss.

Such was the punishment which Psyche's bad sisters incurred, led to perdition by their own envy and evil intentions.

THE CENSURE.

Eros, in the meantime, suffered unspeakable pain from the burn caused by the hot oil that had fallen upon his shoulder. He returned home and, sick with fever, took to his couch lamenting and moaning. A sea-gull who had watched him in his flight, followed him stealthily and peeping into the window of his chamber saw him stretched on the bed apparently ill and suffering great agony. The fleet bird returned to the sea and sent word through one of the daughters of Nereus, to the mother of Eros, who was disporting herself in the depths of the ocean, that her son must have met with an accident for he lay sick in bed. His recovery seemed doubtful.

Aphrodite at once inquired of all creatures what they knew about her boy and how he might have been hurt, but her commiseration changed into wrath when she heard of his secret love affair with Psyche. "Is it possible?" exclaimed the goddess. "This mischievous fellow has neither obedience nor filial piety. Did I not command him to take awful revenge on my rival and to ruin her by some unworthy passion? and now he selects her as his own par amour! He is not worthy to be my son and should no longer partake of the divinity which he has inherited from me, the great mother of life and the queen of animate existence!



Aphrodite hurried home and began to berate her son with bitter words: "What a wayward and ungrateful child you are;" said she, "and what a scandal there will be in Olympus!" The rumor of your escapades is being bruited about and will soon be known to all the gods. You have made your mother ashamed of her son. And I suppose you were foolish enough to marry that stupid girl—a mere mortal without dignity or discretion. What an ill-matched couple you would make! And are you not aware how I must feel at your making an enemy of mine my daughter-in-law? Think of it! An earth-born woman to dare to come forth as my rival and aspire to be your wife! It will be a disgrace, for you, for me, for the whole

family of the gods. Do you believe that I could ever give my consent to your union with Psyche?—No! I shall have you punished and will see to it that Psyche shall find a place of eternal torment in the infernal regions."

Flushed with anger she slammed the door and called Vulcan Hephæstos, her husband. "Please, look out for the boy, lest he escape," she said imperiously, as a woman wont to enforce obedience of a humble and devoted husband. "Build at once for this wanton bird a strong, big cage, with iron bars, for I will show to the world and to all gods that my authority can not so easily be set aside. I am the deity of love, not *he*. I shall yield neither to that upstart girl nor to this arrant knave, even though he be my own son!"

The god of the fiery forge grumblingly muttered between his teeth some words which might be taken for an indication of submission as well as protest. His reply caused her to stop and turn on him rather sharply with the question: "What did you say?"

"Oh nothing at all," said Hephæstos, "I was only thinking that I had never expected anything better of the boy. He is a villain and will ever remain one; and he added in an undertone careful not to let his wife hear it who was beautiful withal in her anger: "Nor can he help it. He is born so, he is his mother's son."

At that moment Demeter and Hera entered and became unwilling witnesses of this little domestic squabble. But Aphrodite did not seem to mind their appearance, for she at once explained the situation. "You come in season," she added, "help me to find and punish Psyche, for I must have my revenge!"

The two visitors tried to mollify the anger of their cousin and could not understand what grievous sin Eros had committed. They granted that it was a mortal offence for a human being to be a rival of one of the Olympian gods, and that Psyche deserved a severe humiliation. But that could be atoned for and had nothing to do with the love affair of Eros. "Is not on the one hand the girl of royal blood," replied Demeter, "and is she not a good match for Eros? On the other hand, such a little gallant adventure is exactly the thing one would have expected of your son who in every respect follows in the footsteps of his mother. When the apples are ripe, they do not fall far away from the tree, and there is no reason to grow excited about it."

Aphrodite had difficulty to suppress her indignation and turned for support to Hera, the dignified wife of Zeus and Queen of Heaven. The latter did not quite share the views of Demeter, but

neither did she countenance the opinion of Aphrodite. Though she had no excuse for the conduct of Eros, she pleaded Psyche's cause, saying: "Have not several mortals been received among the Olympians? "Even I, the Queen of Heaven, had to allow Heracles to become one of us, and he was the son of a mortal woman, one of my rivals; but when I became convinced that he was worthy of the honor, I was glad to welcome him as one of the immortals and offered him with my own hands the nectar cup that endowed his person with everlasting life. My daughter Hebe, the goddess of eternal youth, has become his spouse and he will remain to mortal men for ever the paragon of human excellence."

THE QUEST.

Psyche continued her desolate journey, wandering hither and thither and resting neither night nor day in her search for Eros. If she could not regain the affections of her husband by proving to him her devotion, she was at least determined to propitiate him with the humble services of a handmaid.

While walking along the high road she saw a noble temple on the top of a mountain, and called out: "O that it might be the abode of my lover and lord!" And, attracted by the beauty of the building and its high columns, she wended her way toward its entrance.

The sanctum of the temple was decorated with wreaths of ears of wheat, and sheaves were placed here and there around the altar. There were sickles and other implements of harvesting, but everything lay about in disorder, thrown down at random by the hands of the fatigued harvesters. Psyche at once began to arrange the emblems of rural industry in good order, and said within herself: "I must not neglect the shrines of the gods nor their holy service, for I might thereby gain mercy for myself and forgiveness of my failings."

It was a temple of Demeter, and when the goddess saw Psyche diligently attending to the task of a servant in the hall of the temple she cried out: "Alas! Psyche, what do you do? Venus Aphrodite is tracking your footsteps and means to wreak vengeance upon you for the offence which you have given her; and you, not thinking of your own safety, are working here in the temple and taking care of my belongings!"

Psyche fell upon her knees and conjured the goddess to assist her in finding her beloved husband. "By the joyful harvest rituals; by the mysteries of Eleusis, with its lighted lamps and

solemn processions; by the sacred chests that conceal the symbolic utensils; by the fiery chariot drawn by winged dragons; by the countenance of the awful Hades who snatched away thy daughter Persephone; by her marriage and descent into the infernal regions; by the hallowed earth that closed upon her and her abductor; by the joyous return of the goddess with torch-illuminated processions; and by thy sacred sanctuary in Attica; by all the venerable traditions and the solemn silence that surrounds thy rites—I implore thee to succor the wretched Psyche and to look with compassion upon this humble supplicant. Suffer me for a few days only to hide myself among the wheat sheaves, until the anger of the goddess who pursues me without cause has passed away, or at least is



mitigated by the lapse of time. I am worn out by long travel, my feet are sore, my soul is weary, and I long to recover my strength for continuing my search."

But the goddess of the golden harvest remained unmoved by the maiden's entreaties and bade her humble supplicant rise to her feet. "I should be glad to assist you," she said, "but I am powerless, for I should only incur the hostility of a sister goddess, without rendering you any help. In fact, I am bound by the rules of the Celestials to take you prisoner and hand you over to her wrath; and I make myself guilty of a breach of the established etiquette in simply bidding you leave my temple and begone."

With these words, Demeter turned her back, and Psyche left the temple. Her afflictions were now doubled. She not only longed

for a reunion with her husband but also feared the anger of Aphrodite, one of the most powerful goddesses, and there was none to whom she might apply for help or protection.

She walked down hill to the valley, and espied among the tall trees of a sacred grove another temple of magnificent structure. It was a temple of Hera, Queen of Heaven and wife of Zeus, the great father of all the gods and men. Hoping to receive consideration at the hands of her who claimed to be protectress of the dignity of wives and mothers, Psyche entered and beheld the noble offerings and embroidered garments hung around with votive inscriptions. She fell upon her knees and embracing the altar she addressed the great goddess in prayer: "O, consort of the mighty Father, whose power extends over all the world, O holy Lady, who art adored as the Virgin Mother of the gods, Queen of Olympus, passing through the heavens in a chariot drawn by lions, thou mistress of the Island of Samos and the fortified city of Argos on the banks of the Inachus, protectress of holy matrimony, listen to my prayer and consider my overwhelming misfortunes!"

The auspicious goddess at once appeared visibly to the eyes of the suppliant, in august majesty, and said: "Readily would I grant your prayer if I were not bound to respect the wishes of Aphrodite, my daughter-in-law, whom I love and cherish as my own child. I hope that fate will not overburden you in your distress, and that your trials may draw to a happy conclusion; but I cannot interfere and must leave you to your own destiny. Be perseverant and faithful and you will work out your own salvation."

Utterly dismayed by this new rebuff, Psyche decided to give up the attempt of finding a place of refuge or of looking to her own safety, and said to herself: "I cannot escape the wrath of Aphrodite, and it will be best to submit patiently and humbly to the penance which the goddess may impose upon me. I shall certainly not find my lost husband by searching the world, but I am quite likely to meet him again in the home of his mother. I will be resolute and approach my enemy and pursuer boldly. It is true she hates me, but is she not at the same time the mother of him whom I love with a devotion that knows no bounds? It may be my own destruction, but there is no other chance left. If I am doomed I shall prefer to die willingly and courageously. Better bleed to death as a willing sacrifice on the altar of the gods than be hunted down as a wounded doe in the chase."

THE SUBMISSION.

After a vain pursuit of Psyche throughout the cities of Greece and other countries, Aphrodite returned to her home in Heaven. She rode in a chariot of pure gold which Hephæstos, her husband, had skilfully wrought for her in the shape of a shell as a wedding present, rendering the precious metal more precious by chiselling away a part of it and giving it a beautiful form. Four white doves of the flock that nestled under the eaves of her celestial mansions were hitched to the beam and moved it onward with wondrous ease.



Riotous sparrows fluttered round their mistress, noisily chattering and proclaiming the approach of the great goddess, whose train passed through the sky gracefully like a roseate cloudlet.

Soon the ether opened before the eyes of the goddess and, having reached the summit of Mount Olympus, Aphrodite approached the throne of Zeus, the mighty thunderer and ruler of the world. She saluted him with noble dignity and asked for the services of Hermes, the herald of the Celestials, which the great father of the gods granted without further inquiry. Hermes, on being called, cordially greeted the fair goddess, and learning her desire

at once put on his winged shoes, thus making himself ready for a descent to the earth.

Journeying together in the golden chariot, Aphrodite, the goddess addressed him with winning words: "My dear brother," she said, you know that I never do anything without your advice and I now need your assistance in a special case that causes me much annoyance. A mortal girl who has dared to be a rival of my dignity and thus has forfeited to me her life and is now by right my slave, has absconded, and I am unable to find her. I must resort, therefore, to publishing a proclamation, and issue a warrant for her capture." Thereupon Aphrodite handed the herald-god a paper which contained the name of Psyche and a description of her person, naming at the same time the reward which was promised for the surrender of the fugitive.

The proceeding, however, had become superfluous, for scarcely had the goddess returned to her home when Psyche approached the gates of the palace and delivered herself into the hands of her enemy.

One of Aphrodite's servants, Fashion by name, met Psyche at the door and bawled out: "Thou wicked wench! Thou art the very person my mistress is seeking."

Fashion seized the frightened damsel by the hair and dragged her violently into the presence of Aphrodite, who addressed her with haughty irony: "At last you deign to pay your respects to your mother-in-law? I suppose you know, my fair young lady, that if you had not come of your own accord, I should soon have discovered your hiding-place; but now I will treat you according to your deserts."

THE THREE TASKS.

Psyche protested that she would willingly and gladly serve the mother of Eros and be in every respect obedient to her behests, saying: "I beg you try me and receive me as a handmaid in your house, only have mercy on me and desist from hating me."

Aphrodite replied, "We shall see what you can do," and led the humble petitioner out to the barn where she took barley, millet, poppy seed, and every other kind of grain, mixed them well together in an enormous heap and scornfully said: "I will test both your patience and skill. Sort these seeds grain by grain, and unless the task be done before the evening I will deliver you over to my servants, Anxiety and Sorrow, who shall torment and chastise you with due severity." Then, leaving the embarrassed girl alone with her formidable task, she shut her up in the big barn.

Psyche was broken-hearted, and looked with silent despair upon the mountain of mixed grain. But before she could consider how she might perform this intricate work, a tiny ant came out and pitying the distress of the forlorn maiden, whom it knew to be the consort of the mightiest of the gods, summoned the help of its in-



numerable comrades. A whole tribe of thousands and thousands of these little creatures soon made their appearance, and began to sort the heap of seeds. Their work did not last long, and the task was soon completed.

When Aphrodite returned at night-fall, exhilarated by the joyous festivities of a nuptial banquet, decorated with roses, and re-

splendent with beauty, she saw the marvellous task performed, and cried out: "This is not the work of your own hands; for I am sure, you could not have finished it without assistance. But I will give you another task."

A piece of coarse bread and a jar of spring-water was the only meal she granted the beautiful bride of her son, and turning her back upon the frightened girl, the goddess left Psyche alone in the cold barn.

On the next morning Aphrodite reappeared and showed again her irreconcilable hatred. She pointed to the woods and said: "Do you see the forest beyond the stream? Go out into the wilderness and you will find there a flock of sheep grazing, with fleece that shines like gold. I want a tuft of that precious wool. Go then and



bring me one. But mind you, the sheep are wild, and when you approach them they will butt you ferociously and may kill you."

Psyche went out to the stream, not so much to obey the commands of her severe mistress, as to meet death either on the horns of the wether or in the depths of the river. But when she came to the banks of the stream the nymph of the reeds, the mother of music, began to speak with the voice of a flute: "O, Psyche, do not desecrate the waters of the river by making it your tomb; nor approach the wether or any of the sheep while they are browsing in the woods. They are fierce, and will certainly destroy you. If you will follow my advice lie down under the shadowy plane-tree; when the sun has descended from the meridian and approached the horizon, go out to the place where the sheep have passed

through brush-wood ; there you will, without encountering any danger, gather some golden tufts from the thorns of the bushes."

Psyche did according to the advice of the reed ; and when she came home, Venus looked on her with amazement, and said : "How didst thou escape death in the wilderness, and how didst thou procure the golden tuft from the fierce sheep ?"

When Psyche told her how easily she had completed her task the goddess replied : "I know very well that it was not your wisdom that made you succeed, but I will propose a third trial which will probe not only your discretion but also test the courage of your heart."

Psyche looked expectantly at her tormenter and Aphrodite continued : "Here is a water-urn of purest crystal ; take it and ascend



the mountain. In the most desolate region of the wilderness you will find the place where the waters of Cocytus roll, rushing down over the steep precipice to disappear in an unfathomable abyss. Fetch me some water from the fountain-head of the holy river, and I will test thereby whether thou art worthy of my son."

Psyche took the crystal urn and hurried out to the source of Cocytus, but found the rock over which its wild waters rushed inaccessible. The place was haunted by wild dragons who were lurking in the crevices of the cliffs, threatening her with hisses and opening their wide jaws as if to devour her. Breaking down under the terrors of the place, Psyche burst into tears, when suddenly a mighty bird came down to her from the heavens. It was the strong eagle of Zeus, who hovered by her side and inspired her with new

courage. Remembering the good services with which Eros assisted him when sent down to bring up to the throne of Zeus the Phrygian cup-bearer, Ganymede, he was determined to prove his gratitude by hastening to help the wife of the god of love in her distress.

The eagle addressed the despondent wayfarer, saying: "O, simple-minded maiden! Do you imagine you can catch one drop from the source of these enchanted waters without being hurled into the deep gorge? The mere attempt is sure death. But give me the urn, and I shall be glad to fill it for you."

The royal bird of the mighty Zeus took the vessel in his claws and, flying up to the rushing torrent, filled it in the dashing waves of the river, amid the furious attacks of dragons and venomous



reptiles. Psyche was glad to receive the water and quickly returned to Aphrodite whose anger was rather intensified than appeased by the success of her humble daughter-in-law. "You have again completed your task beyond my expectation," said she; "you seem to be a veritable witch who can work miracles; but do not hope to escape thus lightly. There is one more thing in which you must serve me. That, however, I expect will be the last."

THE REALM OF DEATH.

Aphrodite was mortified at the happy termination of the three tasks set to Psyche and said to herself: "I will now go about it in a more determined way and bring this unsatisfactory relation to a definite conclusion. I will so arrange it that the silly creature

must perish." So she took a little vase curiously wrought in gold and decorated with inlaid enamel, and said to Psyche: "Take this vessel down into the infernal regions and deliver it to Persephone, my niece, the noble Queen of King Hades, called Pluto, the ruler of the dead. Tell her that I am anxious to receive from her some spray from the fountain of youth; and let it be enough to restore the beauty of seven days; for that much I have lost in ministering unto my sick son. Begone, and make haste. I wish you luck on your journey, and when you have procured the rare gift let your ascent be speedy,"—adding in an undertone—"if ever you can find your way back from the country whence there is no return!"

Psyche now gave up all hope. She knew that he who went down to the infernal regions would never again behold the light of the sun. But she was willing to obey, and proceeded toward a high tower, for, thought she, if I precipitate myself from its battlements I shall most quickly reach the land of the shades.

When she arrived, the tower suddenly addressed her and said: "Miserable maiden, why dost thou attempt to destroy thyself, and why dost thou give up so quickly in the face of great danger where endurance and courage are most needed? Truly, if thou hurlest thyself down thou wilt reach Hades but with no chance to return thence to the world of the sun."

Psyche sat down at the entrance of the tower and said: "What shall I do? There is nothing left for me but to die."

The tower replied: "Take courage and listen. Near Lacedæmon, in the mountains, is a gorge which contains a cave known to be the breathing-hole of the Nether World. In its yawning depth is an untrodden road that will lead thee to the palace of Hades. But thou must not pass by the shades with empty hands. Take along some barley-bread soaked in hydromel, that old fashioned drink made of honey and water, and put in thy mouth two coins. When thou hast accomplished a good part of thy journey thou wilt meet a lame ass laden with wood, and a lame driver, who will ask thee to hand him some cords to fasten the burden which has fallen from the ass. But beware of him, and pass him by in silence. It is a device of the rulers of the shades to detain visitors on the way and to prevent their return. Then thou wilt arrive at the river of the dead and must pay Charon his fee for ferrying thee over to the other shore; for avarice is practised even in the realm of death. Let Charon have one of the coins, which thou must allow him to take from thy mouth with his own hands, and keep the other coin

for thy return. While thou passest over the sluggish river the corpse of an old man will float on the surface and raise his hand in entreaty to help him into the boat. It is but another device to entangle thee in the affairs of the Nether World. Beware of yielding to any impulse of sympathy but keep silent and suffer the boat to pass by. Having reached the other shore, thou wilt find at a little distance three old women weaving, who will request thee to lend them a helping hand. But it is not lawful for thee to touch the web. Pass the weird spinsters by and heed them not. All these and many other apparitions are snares prepared for thee. If thou



liftest thy hand, anxious to assist others, thou wilt drop some of thy hydromel bread without which thou wilt be unable to return to the light. There is at the threshold of Persephone's castle a large fierce watch-dog with three heads, who by his barking terrorises the dead, lest any one of them escape. Appease him with a sop of thy hydromel bread, and thou wilt have no difficulty in passing him by. When thou enterest the portal thou wilt come directly into the presence of Persephone, who will receive thee graciously. She will ask thee to be seated and to partake of a sumptuous banquet; but refuse all her courteous offers, for if thou eatest a morsel of the food of the shades thou must stay with them forever. Therefore tell

Persephone that a piece of common rye bread will be sufficient for thee; this she will give thee, and do thou eat it. Then it is time to attend to thy errand, hand her the vase, and having received in it the gift for Aphrodite, thou mayest return to the world of light. Thou must again bribe the cruel dog with the rest of thy hydromel



bread, pay the ferryman with the coin reserved in thy mouth for the purpose; and having passed back over the river thou wilt, after journeying through the cavity, again reach its entrance, where the light of the celestial stars will greet thee. But I warn thee above all things to be very careful with the mysterious vase in thy charge;

do not open it, do not even look at it, nor try to explore the treasure that is concealed in it."

Psyche proceeded to Lacedæmon and found the cavity in the gorge. Having procured two coins and the barley bread soaked in hydromel she ventured into the avenue that leads to the infernal regions. She passed the lame ass with its lame driver, let the ferryman take his fee, turned a deaf ear to the entreaties of the floating corpse, neglected the request of the greyhaired spinsters, assuaged the furious dog with a sop of hydromel bread, and entered the palace of Hades. Persephone, seated by the side of her awful husband, listened in kindness to the maiden's message and granted the petition. Remembering her own sad fate, the goddess felt com-



passion and invited her fair guest to eat at the royal table ; but Psyche declined and was contented with a piece of rye bread for supper. Having received Persephone's gift in her golden vase, the anxious wanderer returned by the way which she had come. A second time filling the jaws of the watch-dog and paying the ferryman with the coin still left in her mouth, she fled from the infernal regions and reached the world of the living early in the morning, while the stars were still shining in the heavens.

Having overcome all these dangers against her own expectation, she began to ponder on the terrible scenes which she had beheld. She thought of the vase and its contents, and said to herself: "How foolish I am ! Here I hold in my hand spray from the

fountain of youth, the very essence of divine beauty, and I am on my way to deliver it to the woman who hates me and designs my destruction. Should I not open the vessel and keep the precious gift for myself, which would make me fair to behold and would forever bind my husband to me by the most powerful of ties?"

She lifted the lid, and the essence with its deadly odor poured out in the shape of vapor. It contained no beauty, but proved to be Stygian sleep and forgetfulness, which immediately seized



her, and she sank down prostrate on the ground surrounded by a dense cloud of somnolence.

THE MARRIAGE FEAST.

Eros, in the meantime, had recovered from his illness. A butterfly that came fluttering through the window told him the latest news of the trials and misfortunes of Psyche. Having regained his old strength and recklessness, the youthful god easily outwitted the watchful Hephæstus escaping from the chamber through a window and hurrying on the wings of love to the earth, to the very entrance of the cave in the gorge that leads to the infernal regions. He saw Psyche stretched on the ground motionless, nothing but a sleeping corpse. "It is a kind providence," he said to himself, "that allows

me to arrive at the right moment to help the beloved maiden before her sleep changes into death."

With these words Eros took away the Stygian slumber from Psyche's eyelids, and closed the soporific vapor in the vessel from which it had escaped. Then touching Psyche with the point of one of his arrows, he called her back to life. "Unhappy girl!" he exclaimed, "have you again become a victim to curiosity? You should know that the fountain of youth is a spring that is fed by the waters of Stygian Lethe. Only the celestial gods can partake of it without suffering harm, but poor mortal mankind, when tast-



ing the drink of oblivion for the sake of its rejuvenescence, must constantly pass through death and birth."

Awakened by a kiss from Eros, Psyche opened her eyes and saw her lover bending over her, anxiously watching her return to life. "Now you see," he said to her, smiling at his own good tempered taunt, "how fatal your inquisitiveness might have been. Take the vase and deliver it to Aphrodite; and while you carry out the demand of my mother I shall see to the rest."

He bade farewell to his blooming bride and flew straight up to Olympus to present his cause directly at the throne of Father Zeus.

Big tears filled Psyche's eyes when she saw the beloved god

soar up to heaven. "Will he return? Does he still love me? Has not my beauty suffered through the severe trials to which I have been exposed so long?" She sat down on the bank of the stream that flowed past with an almost imperceptible motion and there she saw her face reflected as in a clear mirror; and her heart



leapt for joy, for indeed she was as beautiful as ever—nay more so, for her charms had ripened into full bloom; she had grown maturer and the expression of her face showed more depth and comprehension. A feeling of unspeakable happiness came over her; she grew so gay and light-hearted, that she felt as if she could rise up into

the air. Her whole system seemed transfigured and on her shoulders appeared two butterfly wings of marvellous iridescence.



The mighty father of the gods received Eros kindly and kissed the beloved youngster, saying: "Thou indeed among the gods payest least respect to the ruler of Olympus, and dost not



shrink from implicating me in the intrigues of earthly relations. But considering that thou art very dear to me, and that I have

nursed thee with my own hand, I will gladly comply with thy wishes."

With a smile of a grandfatherly indulgence, the great Zeus ordered Hermes, the herald of Olympus, at once to summon an assembly of all the celestials and, since a high penalty was imposed



upon any one that should be delinquent, the assembly hall was soon filled.

When Venus Aphrodite arrived in her shell chariot drawn by pigeons, she met her son Eros as he rushed down to the earth: "Mother," he said in a reproachful and almost bitter tone; and yet

there was at the same time a note of gentle pleading in his sweet voice. "Mother, if you persevere in your objection to my marrying Psyche, I am determined to leave the high Olympus, to renounce my divinity, and to retire to the place to which your will may banish her. Tartarus in her company is a more welcome abode than Heaven without her."

Aphrodite followed him with her eyes as he descended. She shook her head and said to herself: "The boy is no longer himself; I fear me, I must yield, or there will be some great calamity."

Eros descended to the earth where he found Psyche anxiously



waiting for him. He greeted her with a kiss and she informed her lover that she had delivered the vase and its contents to Aphrodite, but the goddess had received her disdainfully and dismissed her in disgrace, claiming that this time the task had not been completed rightfully and truly, for the vessel had been opened and the strength of its contents was gone.

"Do not mind my mother's severity," said Eros, "I have gained a most powerful ally in my grandfather, the mighty Zeus. Accompany me to Olympus and at the throne of the omnipotent sovereign of all the gods our destiny will be decided."

Psyche leaned on the shoulder of Eros who placed his arm

lovingly round her waist and both were lifted up to heaven on the wings of divine happiness.

In the meantime the great Zeus, the lofty sovereign of Heaven, took his seat on the throne and addressed the gods assembled in council: "Ye Olympian deities, who are here gathered together in complete number, ye are well acquainted with the flighty character of the youth, Eros, the youngest of the gods and yet presiding over the most important functions of the life of the world. I deem it necessary to bridle his impetuosity and to restrain his impulsive nature. It will be best for him, for the gods, and for the welfare



of the whole world, if he will forthwith assume the responsibility of marriage. If he has a wife and the cares and worries of a household, he will become sober and sedate;" and turning to Aphrodite, Zeus said: "Since he has made his choice and pledged his troth to a maiden that pleases his fancy, we ordain that his marriage shall be recognised as legal and his bride accepted in the circle of the Olympians as one of us. The mother of the groom had some cause to be dissatisfied with the choice of Eros, but I advise her to be lenient with her daughter-in-law Psyche, who, though a mortal maiden, has proved herself worthy of her son's love and of relationship with the gods."

Aphrodite at first pouted her lips and ventured to raise objections, but when she saw that the mighty brow of the great father of the Olympians became clouded with ire, she relented and granted that Psyche was worthy of her son's hand. Then the face of Zeus



brightened again, and all the gods were pleased with his proposition. Apollo moved to celebrate at once the marriage of the young couple in the banquet hall of high Olympus. He was seconded by Bacchus; and the motion was carried when Eros in company with Psyche entered the assemblage. The young bride received the con-

gratulations of the Olympians, and Zeus himself presented to her a bowl of nectar from which Psyche drank the bliss of immortality.

The gods sat down to the banquet in the order of their dignity. Eros and Psyche, however, sat nearest to Zeus, the great father of the gods, and were now legally and solemnly for ever and aye joined in holy wedlock. Ganymede acted as cup-bearer to the



mighty sovereign of Olympus, and Bacchus supplied the rest of the company with drink.

After the banquet the merry-making was continued far into the night. The Seasons suffused the scene with roseate hue, Apollo sang and played the lyre. The Muses played a grand symphony, Aphrodite danced before the gods and unexpectedly showed herself very gracious to the bride. Satyrs played the flute.



Thus ended the sorrows of Psyche, and her happiness was complete when at the appointed time she bore her husband a child, a little daughter, sweet, and cunning, and bright. When she smiled her eyes were beaming like sunshine, and her parents called her "Joy."

No one of the gods, and least of all Venus Aphrodite, ever found cause to regret that Psyche had been admitted to the circle of the celestials. Very soon things had the appearance as if she had been living in Olympus since time immemorial, and whenever she happened to be absent, her happy face was sure to be missed. Since her arrival heaven seemed more radiant than before.

The inhabitants of the earth rejoiced at the honors of the earth-born maiden. In Psyche the divinity of the human soul had found official recognition among the Olympians. Since thus the human had been deified, and since thereby the divine had revealed itself as the truly human, mankind seemed more human and the gods more divine than ever.

The human soul will go astray, but if it remains faithful to its ideals, firm amid the temptations and vicissitudes of fate, and courageous even in the terrors of hell and under the shadows of death, it will at last find the path that leadeth unto life, and it will find it in Love.

Love moves the universe. As attraction, Love sways the molar masses of gravitating bodies; as affinity, Love joins atoms into higher combinations; but Love reaches perfection only when it is mated with the human soul; for then Love becomes conscious and learns to know its own nature. In the human soul, however, Love is confronted with longing, with suffering, and with parting. It passes through trials and tribulations, but now at last Love finds bliss in otherness, satisfaction in self-surrender, a restitution to life in the oblation of its own being, and immortality in death.

Death is the problem of life, but Love is its solution.



A STUDY OF JESUS FROM THE VIEW-POINT OF WIT AND HUMOR.

BY GEORGE WRIGHT BUCKLEY.

I.

TO the supreme end of bearing witness to spiritual and moral truth Jesus was endowed with certain qualities. Among these were clear perceptions of right and wrong, poetic sensibility, insight and sympathetic imagination to enter readily into the consciousness of others,—their motives and reasoning, their hopes and fears, loves and hates, joys and sorrows. To the above-named qualities add a divine passion for service, a gift for oratory of a genuine and persuasive kind, and, withal, a faculty of wit and humor original and searching in marvellous degree. In making prominent this latter faculty, the writer here is concerned, not so much that he classify the wit and humor of Jesus, as that he give them a living relation to a personality ideal, and yet subject to the law of human development,—a personality whose speech to men gathers a somewhat sharper and sadder cast under the growing stress and strain of that conflict which finally exalted him to the agony of the cross. Hence the Christ who first appears in these pages is full of the buoyant hope and expectation of his earlier ministry; at which period, I fancy, the "inaudible laugh" more often dimpled the soul of him; more often the beam of sunny humor shot athwart his serious discourse. Thus it is I am pleased to see him when he painted such lively pictures as the following: The woman searching with candle and broom for the lost coin; and, like a woman, calling in all the neighbors to rejoice with her when she has found it.—The persistent man who wakes up his neighbor at midnight to borrow three loaves of bread, and, being refused, clamors at the door until from sheer weariness the neighbor rises, and hands out, or throws out, "as many as he needeth."

—The irrepressible widow pestering the unrighteous judge into granting her petition. "Though I fear not God, nor regard man; yet because this widow troubleth me, I will do her justice, lest she wear me out by her continual coming." I suspect the phrase, "Though I fear not God, nor regard man," was aimed at a class of judicial magistrates of the day, more noted for scepticism and cynicism than for righteous judgment.—The unjust debtor who sues for mercy, and gets released from a debt of thousands of talents, then straightway casts into prison a poor man owing him but a few shillings.—The several parables about the bad stewards: The cunning and wasteful steward, who, anticipating his discharge, seeks to put his lord's debtors under obligation to himself by scaling down their debts.—The steward who gets drunk and beats the servants in his lord's absence, but is surprised in the midst of his folly by the latter's unexpected appearance on the scene. Further citations of this nature need not be made here.

In meeting criticism how charmingly he sometimes shuts off controversy by a little playful humor, it may be by a single epigram! When taken to task because his disciples do not fast, as is the custom of the Pharisees and the disciples of John, he opposes his questioners with none of the dialectic gravity of a Gautama Buddha; but, with good nature, he compares himself to a bridegroom and his wedding-friends. "Can the sons of the bride-chamber mourn as long as the bridegroom is with them? But the days will come when the bridegroom shall be taken away from them, and then will they fast." According to all three of the synoptic gospels it is in this connexion that Jesus is censured for the very opposite of fasting, viz., for feasting and fellowship with "publicans and sinners." And how does he meet the censure? By a reply memorable to all succeeding generations for the deep, sympathetic wit and wisdom of it: "They that are whole have no need of a physician, but they that are sick. For I came not to call the righteous, but sinners to repentance."

Having come repeatedly in contact with this fault-finding temper, directed sometimes against John the Baptist, sometimes against himself, he sets it forth in this happy comparison: "But whereunto shall I liken the men of this generation? They are like unto children that sit in market-places, and call one to another, saying, 'We piped unto you, and ye did not dance; we wailed, and ye did not mourn.' For John is come neither eating nor drinking, and they say, He hath a devil. The Son of Man is come eating and drinking, and they say, Behold a gluttonous man and a

wine-bibber, a friend of publicans and sinners. But wisdom is justified of her children." This carping generation is whimsical and petulant as a lot of children playing at mock weddings and funerals. It is predisposed to set its face against the new dispensation, whether it appear in the form of John's austere asceticism, or in the broader and more cheerful comradeship of Jesus.

In the graphic irony of the parable of the Supper and Invited Guests, whereby he sets forth the rejection of his messianic mission by his own countrymen, and the substitution instead of the heathen element,—in this we meet again with a soul of genial humor. We may fancy a gracious smile rippling his face when he enumerated the various excuses offered for declining the invitation of the host, especially that of the man who said, "I have married a wife. Of course I cannot come."

The traditional habit of viewing Jesus as only disposed to grave discourse has invested some of his utterances with a significance altogether different from what they have when the fine flavor of the speaker's humor is tasted in them. A curious instance of this is the account given in the fifteenth chapter of Matthew, which describes the peculiar treatment of the Canaanitish woman pleading for the healing of her daughter. When the disciples try to keep her away she cries the more, "Lord, help me." And what reply does she get? Surely, one neither consistent nor pleasant to hear from the lips of the Messiah of all nations, if we construe it with literal seriousness.—"I was not sent but unto the lost sheep of the house of Israel." "It is not meet to take the children's bread, and cast it to the dogs." Likely enough these words were given the interrogatory form: "Is it not that I was sent," etc., etc. Howbeit, the very witty reply comes, "Yea, Lord, for even the dogs eat of the crumbs that fall from their master's table." According to the text in Mark, Jesus so far relished the woman's wit that he healed her daughter because of it.—"For this saying go thy way," etc. It may be the reply ascribed to the woman was uttered by Jesus himself, in response to objections made by his disciples to the extension of his mission of fellowship and good-samaritan-ship to the heathen.

II.

With what spontaneity of wit this knight of spiritual things meets and masters varied objections and opposing elements that rise unbidden in his way! His answers often come as a searchlight unexpectedly turned on obscure objects in the darkness.

They surprise the hearer from a new point of view with apt quotation, startling paradox, or vivid parable, minted as fresh coin in his own brain. Striking proof he shows of wit and insight into human nature when early in his ministry he returns home to preach in the synagogue of his native village. His former townsmen "wondered at the words of grace which proceeded out of his mouth." But (yes but)—"Is not this the carpenter's son, and his mother and brothers and sisters—are they not all with us?" Some were offended at his manifest superiority to their standard of mediocrity. Offended also was the young evangelist; in the consciousness of his spiritual authority offended. "Doubtless ye will say unto me, physician heal thyself: whatsoever we have heard done at Capernaum, do also here in thine own country. But of a truth, I say unto you, there were many widows in Israel in the days of Elijah, when there came a great famine over all the land; and unto none of them was Elijah sent, but only to Zarephath, in the land of Zidon, unto a woman that was a widow. And there were many lepers in Israel in the time of Elisha, the prophet; and none of them was cleansed, but only Naaman, the Syrian." This just, as well as clever, application of what his hearers accepted as historical facts he clinches with that oft-quoted saying, "Verily, a prophet is not without honor, save in his own country, among his own kin, and in his own house."

Does not Jesus evince on divers occasions a marked phase of wit in the very ready and unique fashion in which he probes to the bottom human prejudice and selfishness by unexpectedly setting up a standard of life contrary to the conventional one—sometimes contrary to the all but universal practices of men? To cite only an instance here, take his treatment of the foolish question as to who of his disciples should be greatest in the kingdom of heaven. Could any response have been more surprising than the act of setting a child in their midst, with the remark, "Except ye turn, and become as little children, ye can in no wise enter the kingdom of heaven."

How many of the shorter sayings of the Man of Galilee have gone into the world's permanent circulation of wit and humor! Urging the simple fishermen to be apostles of his truth, wittily he observes, "Follow me, and I will make you fishers of men." Delegating his disciples for missionary work, he admonishes them, "Behold I send you forth as sheep in the midst of wolves, be ye, therefore, wise as serpents, and harmless as doves." "If they have called the master of the house Beelzebub, how much more shall

they call them of his household." "A man's foes shall be they of his own household." Certain people protesting, that they will follow him whithersoever he goes, he facetiously, yet with a touch of sadness, declares, "The foxes have holes, and the birds of the heaven have nests, but the Son of man hath not where to lay his head." However, taking them at their word, he summons them forthwith to surrender to the new movement for righteousness sake. Ah, but they excuse themselves, both on account of the living and the dead. Then come from him the pregnant replies: "Let the dead bury their dead." "No man having put his hand to the plough, and looking backward is fit for the kingdom of God." When he perceives that the multitude are prompted to follow him by motives belonging to the animal rather than the spiritual man he turns on them with the just rebuke, "Ye seek me not because ye saw signs [of power to satisfy spiritual hunger]; but because ye ate of the loaves, and were filled." Hence the frequent sarcasm, "They seek after the loaves and fishes." His countrymen boast of having Abraham for their father; and sharply he exposes the chasm between their professions and practices, "If ye were Abraham's children ye would do the works of Abraham." He is warned against the danger of unpopularity: he warns against the danger of popularity. "Woe unto you when all men shall speak well of you! For in the same manner did their fathers to the false prophets."

III.

Inasmuch as the law and the prophets were so generally held to be "the seat of authority" in religion and morals, it is very interesting to note how Jesus deals with opposition by pat quotations from these sources. Sometimes the quotations are applied to himself, sometimes to the age in which he lives, sometimes to certain classes of his countrymen. Thus, recognising on the part of some a wilful blindness, he makes them fulfil the prophecy of Isaiah:

"By hearing ye shall hear, and shall in no wise understand,
And seeing ye shall see, and shall in no wise perceive:
For this people's heart is waxed gross,
And their eyes they have closed;
Lest haply they should perceive with their eyes,
And hear with their ears,
And understand with their heart,
And should turn again,
And I should heal them."

When the Orthodox leaders came with carping questions and accusations Jesus readily turned against them their own scripture ; not that the word was authority with him above the expansive soul of man, but that they, at least in theory, had so made it themselves. If they complain that he, or his disciples, transgress the law, or some tradition of the elders, straightway come citations to show them the real offenders in much weightier matters:—"Ye make void the word of God itself because of your tradition." "Did not Moses give you the law, and yet none of you doeth it?" "Well did Isaiah prophesy of you,

This people honoreth me with their lips :
But their heart is far from me
But in vain do they worship me,
Teaching as their doctrines the percepts of men."

The Pharisees undertake to trip him on the subject of divorce.—"Is it lawful for man to put away his wife for every cause?" He answers by referring to the Pentateuch.—"Have ye not read, that he which made them from the beginning made them male and female, and said, For this cause shall a man leave father and mother, and shall cleave to his wife ; and the twain shall become one flesh. What therefore God hath joined together, let not man put asunder." To this the questioners not inaptly rejoin, "Why then did Moses command to give a bill of divorcement, and to put her away?" They seem to have drawn him into an inconsistency ; but how sagaciously he turns the edge of the second question,— "Moses for your hardness of heart suffered you to put away your wives." To paraphrase it, Moses was constrained to adjust his laws to the development of his people . . . Not his laxity, but the laxity of your fathers made the laxity of the law.

Some of the wisest and wittiest rejoinders concern the observance of the Sabbath. The orthodox charging that his disciples had profaned that day by plucking ears of corn, he confutes them with a precedent made by their most venerated king, and by the priests themselves. "Have ye not read what David did when he was hungered? How he entered into the house of God, and did eat the shew-bread, which it was not lawful for him to eat, neither for them that were with him, but only for the priests, etc. etc." They complain of his healing on the Sabbath ; and he reminds them that to keep the law of Moses, they inflict on the little child the barbarous rite of circumcision on the Sabbath ; "and shall I not make the sick every whit whole? Judge not according to appearance,

but judge righteous judgment." "You hypocrites, does not each one of you loose his ox or ass from the crib, and water him on the Sabbath day? And shall not this daughter of Abraham be loosed (from her infirmity) on the Sabbath?" Again, "If you had an ox or a sheep fall into a pit on the Sabbath, would you not straightway draw him out? How much then is a man of more value than a sheep!" "Is it lawful on the Sabbath day to do good, or to do harm, to save life or destroy it?" Talk of profaning the temple,— "One greater than the temple is here." "For the Son of man is Lord of the Sabbath." Or still stronger, "The Sabbath was made for man, and not man for the Sabbath." How all merely conventional and traditional objections melt away before the logical wit of such "inspired common sense"!

In the matter of healing diseases, the Pharisees antagonised the Nazarene, not so much because of their stricter Sabbatarianism, as because envious of his greater success in the exercise of a power they claimed themselves. Faring so ill in their charge of Sabbath-breaking, they fell into the still more unfortunate charge: "This man doth not cast out devils, but by Beelzebub, the prince of devils." For them unfortunate indeed; for with what nimble wit the young preacher forges the following boomerang from their logic!—"Every kingdom divided against itself is brought to desolation. And a house divided against itself shall not stand: and if Satan casteth out Satan he is divided against himself; how then shall his kingdom stand? And if by Beelzebub I cast out devils, by whom do your sons cast them out? Therefore shall they be your judges. But if I by the spirit of God cast out devils, then is the kingdom of God come upon you., etc., etc."

The chief priests and elders were all the more envious of the growing influence of the teacher from Galilee, because he held no commission from any divinity school, or ecclesiastical body. Hence they came at him with the impertinent question, "By what authority doest thou these things?" It was an offence to the just pride of self-respect, for which he quickly confounded them by one of the most embarrassing of dilemmas.—"I will ask of you one question, which if you answer me I will tell you by what authority I do these things: The baptism of John, whence was it? from heaven or from men? answer me." "And they reasoned with themselves, If we shall say from heaven, he will say, Why then did ye not believe him? But if we say from men, we fear the multitude: for all hold John as a prophet." The only refuge left was (for them especially) the humiliating confession, "We know not."

IV.

It became more and more evident, that the standard of truth and life set up by the Man of Galilee was irreconcilable with the standard maintained by the conservative, both in religion and politics. His enemies multiplied, not solely because of his religious protestantism, but in measure because there was in his teachings a spirit of protest against certain unjust economic and social relations existing among his countrymen. As the "irrepressible conflict" grows more irrepressible, they seek in more deliberate ways to entrap him. Sadducees, Herodians, Scribes and Pharisees, all have their unsuccessful bouts with him. To put him into bad odor either with the Romans, or his own countrymen, the Pharisees connived even with their hated enemies, the Herodians. Joining with them, they once opened on him with this insulting flattery:—"Master, we know that thou art true, and carest not for any one: for thou regardest not the person of man, but of a truth teachest the way of God. Tell us, therefore, is it lawful to give tribute unto Cæsar or not? Shall we give, or shall we not give?" A most cunningly framed question this: for to answer yes, was to deeply offend the national prejudices of his people, and destroy his influence with them as a prophet. To answer no, was, on the other hand, to risk apprehension by the Roman government for political treason. Realising their craft, Jesus turns on them sharply:—"Why tempt ye me, ye hypocrites? Bring me the tribute money. Whose is this image and superscription?" "Cæsar's," they reply. Then—perhaps a momentary flash of scorn in the eye—the words burst forth with weighty emphasis, "Render, therefore, unto Cæsar the things that are Cæsar's." Pausing, and rising above scorn to a sublime consciousness of the debtor relation of all men to one Father, he adds "and unto God the things that are God's."

But of all the victories of Jesus over those who endeavored to ensnare him none is quite so dramatic and impressive as that recorded in the first eleven verses of the eighth chapter of John. Touching the sin of the adulterous woman the Roman law was more lenient, and more in general favor with the Jews themselves, than the Mosaic. In application the Rabbis had modified the rigor of the latter; and the teachings of Jesus were distinctly of a milder cast. When, therefore, the Pharisees and Scribes reminded him that the law of Moses required that an adulteress should be stoned to death, and sprung the question, "What, then, sayest thou of her?" the intent was to hedge him about in a double dilemma.

They hoped, as in putting the question of the tribute money, he would side either for the Mosaic law or the Roman law, or would raise an issue between the strict and lax constructionists. Pronouncing for the former he would go counter to the inclinations of the people in general, and be charged with contradicting himself as the teacher of a more humane doctrine. Pronouncing for the latter, he would offend what may be called the Puritan element among the Jews; the charge then would be, thou hast contradicted the Scripture, and gone against Moses himself. In case, however, he avoided these issues, there yet remained the expectation that he would lay down, on his own authority, a new rule of practice, and so appear to be setting himself above *all* the recognised authorities—the Roman law, the Mosaic law, and the rulings of the Rabbis. Surely, they thought, he will answer so as to bring himself into disrepute with some important class of his countrymen. In such a complicated dilemma as this, it is quite rational to suppose that even the swift intellect of Jesus required a moment or so to consider how he should deal with such crafty questioners. He stooped down, and marked on the earth, while he framed a reply the wisest and wittiest possible to the situation. Right marvellous encounter this, between the sons of darkness and the son of light! Round about stand the people, wondering what he will say. Within the circle, nearer the Master, wait his disciples in breathless anxiety, both hopeful and fearful of the result. In the centre stands the woman, scarlet-faced in her shame, guilty of the charge against her, no doubt as to that. Close upon Jesus, eyes involuntarily gleaming hatred, faces advertising exultant expectation of victory this time—close upon him, in his supposed confusion, his adversaries press their cunning question: "What sayest thou?" They have had full opportunity to be secretly exultant. Then slowly he raises himself, and with all commanding gravity and insight into the infirmity of man in general, perhaps these men in particular, he answers: "He that is without sin among *you*, let *him* first cast a stone at *her*." The sensitive, sympathetic Christ feels the pain of the questioners' own confusion. Magnanimously he spares them further embarrassment: stooping again, he marks on the ground while they have time to slink away. The accusers themselves convicted, how now shall he deal with the accused? Magnanimous again, Jesus condemns not; but with a bearing toward her, with a tone of voice, with words full of sad and gracious rebuke, the most effectual to insure reform, he gravely charges her,—"*Go thy way: from henceforth sin no more.*"

Notwithstanding the rejection of this anecdote as spurious by a considerable number of Biblical scholars, I unhesitatingly accept it as the record of an actual fact in the life of the same capacious and compassionate soul who said to the repentant Magdalen, in the house of Simon:—"Thy sins, which are many, are forgiven thee." Subjectively considered, no account of the Nazarene's trials of wit bears any more genuine stamp than this story of the adulterous woman.

v.

Under stress of disappointment at the apparently small results of his labors and sacrifices; under stress of increasing antagonism to his way of life, both among the upper and lower classes, the preaching of Jesus becomes more aggressive and pungent in its wit and humor. "Give not that which is holy unto the dogs, neither cast your pearls before the swine, lest haply they trample them under their feet, and turn and rend you." For the self-complacent and uncharitable hypocrite he has a quiver full of "sun-arrows."—"Why beholdest thou the mote that is in thy brother's eye, and considerest not the beam that is in thine own eye? Thou hypocrite, first cast the beam out of thine own eye; and then shalt thou see clearly to cast the mote out of thy brother's eye." Be not as the hypocrites who pray, and fast and give alms "to be seen of men." Calling the Pharisees "blind guides," he asks, "Can the blind guide the blind? shall they not both fall into the ditch?" Again he says, "Beware of false prophets, which come in sheep's clothing, but inwardly are ravening wolves. By their fruits ye shall know them. Do men gather grapes of thorns, or figs of thistles?"

Jesus' dislike of sectarian pride and self-righteousness seems to reach a climax of expression in the piercing ridicule of the familiar parable of the Publican and the Pharisee who went up into the temple to pray. How incomparable the clear, picturesque antithesis made between the two opposite and generic types of character therein set forth!

Jesus had experienced in the smaller cities enough of hypocrisy, craft, and resisting sensualism to call out his powers of irony, of ridicule, and of invective too. But it was within the walls of the sacred City of Jewdom, that he was pricked to the utterance of those most caustic parables and denunciations which precipitated the final catastrophe. Among the former which gave special offence is the following very remarkable one of the Husbandmen and the Vineyard:—"There was a man that was a householder, which planted a vineyard, and set a hedge about it, and digged a wine-

press in it, and built a tower, and let it out to husbandmen, and went into another country. And when the harvest drew near, he sent a servant to the husbandmen to receive his fruits. And they took him, and beat him, and sent him away empty. And he sent another servant, and him also they shamefully maltreated, and turned away empty. And still he sent a third, and him they killed. Likewise did they unto other servants, beating one, stoning another, and killing yet another. Finally the lord of the vineyard said, What shall I do? I will send my son: It may be they will reverence him. But the husbandmen, when they saw the son, said among themselves, This is the heir; come let us kill him, and have the inheritance ourselves. And they cast him out of the vineyard, and killed him." Pausing here for his words to take effect, the parabolist continues,—“What, therefore, will the lord of the vineyard do unto them? He will miserably destroy those miserable men, and let out the vineyard unto other husbandmen, who shall render him the fruits in their season.” Following close upon the parable, Jesus happily applies to himself these lines from the Psalms:

“The stone which the builders rejected,
The same was made the head of the corner:
This was from the Lord,
And it is marvellous in our eyes.”

To the prophet from Galilee, each day at Jerusalem makes more evident the hardened cynicism of the aristocratic Sadducees, the self-complacent hypocrisy of the Pharisees, and in general the oppressions of the poor and weak by the rich and strong. Religion itself seems harnessed to the golden chariot of commercial lust. The vast heart of the Son of Man quivers more and more with the wrongs of the common people as *his* wrongs, until there comes an occasion when the swelling “anger of love” discharges itself in that vehement invective which reaches its powerful climax in these words: “Woe unto you, Scribes and Pharisees, hypocrites, for ye build the sepulchres to the prophets, and garnish the tombs of the righteous, and say, If we had been in the days of our fathers we should not have been partakers with them in the blood of the prophets, wherefore ye witness to yourselves that ye are the sons of them that slew the prophets. Fill ye up then the measure of your fathers.” Such impassioned denunciation from the prince of peace and good-will—does it not exalt the meaning of Shakespear’s lines:

“Great affections wrestling in thy bosom,
Doth make an earthquake of nobility?”

I take the woes in the twenty-third chapter of Matthew, and eleventh chapter of Luke, as in the main genuine, whatever may have been the occasion and order of delivery. Presented in Matthew as part of the last public discourse of this compassionate and dauntless friend of "the weary and heavy laden," they naturally come at the end of the conflict in which "the logic of events pushed him on to act more the part of aggressive reformer, with his love-angers and "heroic angers," than was the case when he set out on his divine mission, all-radiant with the hope of converting his countrymen, all-boundless in charity and faith. Moreover, let the plain word be spoken, that this God-like man had some sublimer business—business more serviceable withal—than that of mere saint, teaching non-resistance and the amiabilities of life.

VI.

Under a free and elastic interpretation of terms, many more illustrations might be furnished of Jesus' wit and humor. Thus, in the parable of the Good Samaritan we can hardly fail to taste the flavor of subtle irony in the personalised contrast drawn between his own sentiment of universal brotherhood, and the provincial, sectarian prejudice dominating his captious questioner, and the church of which he was a member. That other greatest of the parables, the Prodigal Son, has also its undercurrent of humor, similar to that met with a number of times in Jesus' teachings. It embodies one more of the vivid antitheses he drew between the typical "frozen Pharisee," fast-morticed in conventional religion and morality, self-complacent, unpoetic, unsympathetic—between him and the impulsive, passionate wanderer from God, who after a season returns through the saving repentance of sin.

Looked at from the view-point of humor, several of the parables cast by "higher critics" into the category of the spurious, or doubtful, may be brought back into the list of genuine. For instance, in the so-called parable of the Last Judgment, I find more humor than theology. May it not be classed with the Saint-Peter-at-the-Gate parables of the present age, in which the gates of the heavenly city are made to swing open with due alacrity for the unpretentious doer of righteousness, but remain closed to the professional pietist and dogmatist?

But why adduce further evidence of Jesus' wit and humor? Every reading of the gospel records makes more manifest his exercise of these qualities in one or another form. Now he lights up his grave discourse with a bit of pleasantry, like a beam of sun-

shine. Now he excites his hearers to new and unconventional reasoning by startling paradoxes, or unexpected questions and answers. Now he confounds captious critics with the wittiest logic, or shuts off all controversy with a single retort that goes straight to the heart of the matter. Yet again he lays bare shams and shammers with ridicule—aye, on occasion, with invective, sharp and sure of aim. Pleasantry, repartee, ridicule, irony, invective—all are sanctified in his master motive of serving the eternal verities, and advancing the kingdom of heaven on earth. O Son of Man and Prophet of God! O marvellous revealer of truth and unvaracity, marvellous saint and reformer, lover and heroic smiter, Supreme of the Sacrificers—what the reverent Tennyson said, I may say as well:

“Thou seemest human and divine,
The highest, holiest art thou.”

LANGUAGE.

BY PROF. ERNST MACH.

COMMUNICATION by language is not only a necessary condition of the origin of science, it is also the source from which the element of *comparison* in science has sprung. I may be permitted, therefore, without making the slightest pretension to authority on questions in which I have not made original studies, to state my views concerning the origin and development of language and its significance for scientific thought.

We find ourselves in the possession of speech as soon as consciousness appears; to a child this is so much a matter of course that it is frequently much astonished at hearing that babies are obliged to learn to talk. As soon as the facts have wrung from us this admission we naturally inquire: Who *first* taught language? Who *invented* it? If we have outlived the ingenuous period which looks upon language as a gift of the gods, the first explanations that naturally present themselves are the rationalistic theories which regard language as an ingenious invention, and which attribute to men not yet in possession of language a far higher degree of intelligence than they even now exhibit. We learn from linguistic science that one and the same language exhibits different stages of development, that different languages exist which are related to one another and which are therefore presumably of common origin, and lastly that there are languages which show widely varying degrees of complexity in their structure. The weightier and more promising question with respect to the development of language is thus forced into the foreground, that of the origin is relegated to the rear, and the resolution of the latter found to be identical with that of the former. In addition, we can readily observe the development of speech and thought in our own persons. And from the fact of our all having so abundant material for obser-

vation immediately at hand, both philosophical and psychological science have fortunately been placed in a position to compete successfully with positive research in this domain.

Traces of the ancient ingenuousness still linger in the question which is now so frequently put as to the *origin of human speech*, as if human speech ever had at any definite place or time a precisely determinable beginning! From the modern scientific point of view a totally different conception of the problem must be entertained. Whence, pray, should human language have been developed, if not from the animal language of our ancestors! And no unbiassed person can entertain the slightest doubt that animal language actually exists. Every species of animals, particularly such as have social habits, has its accurately distinguishable cries of warning, allurements, attack, etc. The origin of the purely reflex sounds uttered and determined by the human organism accordingly require no explanation whatever; for sounds of this character were already possessed by our animal ancestors.

The undeniable and stupendous differences between animal language and human language are as follows. Animal language has at its command only a small number of sounds, and these are employed to express situations and emotions (fear, joy, anger) which while different are extremely general in character and are accompanied by corresponding activities which in their turn also are extremely indeterminate (flight, the search for food, attack). These activities are then more precisely determined by the actual situation. Animal language, further, is largely innate and is learned only in a minute degree by imitation. The very reverse is true of human language. The belief that animal language is absolutely invariable is not borne out by the facts; the belief is refuted alone by the circumstance that related animal species employ systems of sounds of which any one is easily recognisable as a variation of the other.

The cries of the house dove, the wild dove, and the turtle dove may be cited as examples.¹ But the power of producing the phonic *elements* of language is also inborn in man, being part of the heredity of his organs of speech; and it is even permissible to assume a difference of races in this particular.² The combinations of

¹ To obtain an idea of the extent to which the cries of animals are inborn and the extent to which they are a product of imitation, I once proposed to a celebrated physiologist the plan of interchanging the eggs of house doves and turtle doves brooding some distance apart. But the experiment could not be carried out from our inability to obtain birds which were brooding simultaneously.

² A colleague of mine, a Jew, assured me that he was able to recognise a Jew by the sound of

sounds only are learned. And the situation here is precisely what it is in the case of movements, which are innate in animals in far more enduring combinations than in man.¹ Man is born "younger," so to speak, and consequently with more capacity for adaptation.

It is customary to say that the language of animals is inarticulate. I am curious to know what ground there may be for such a contention. Many of the sounds uttered by animals and repeated by them on similar occasions, and in the same order, admit quite easily of being reproduced by our letters; and in the case of the other sounds for which this is impossible, owing to the fact that we possess no characters for sounds that do not accord with our organs, an acoustic or phonographic transcription might be resorted to. If we examine the facts closely, we are constrained to admit that we are situated with respect to the language of animals precisely as we are with respect to any human language that is unintelligible to us, and that the word *inarticulate* merely means no more than not-English, not-German, and not-French. We might with equal reason call the movements of animals inarticulate because they do not correspond precisely to ours.

Animals are not credited with sufficient intellectual capacity to form a language; that power is supposed to be wanting to all creatures except to man. But is it found in man as the result of a sudden miracle, or has it been produced in him by gradual development? If the latter assumption is true, and it will be the one most likely to be accepted to-day, then the germs of human intelligence must have existed in some form in animals also. Let it be remembered that the slightest possible *difference of degree* will account for everything. A man whose capacity for work produces but a trifle more than is necessary to supply his wants is assured of a constant improvement in his condition, whereas he is almost certain to be ruined by the slightest difference in the opposite direction. Similarly, a species of animals or race of men the range of whose intellectual variations is so narrow that they can never rise above a certain level will be incapable of development, whereas a very slight

a single word, even without seeing him. I believe that I may assert the same with reference to Slavs. And while entire words are certainly not innate, as Psammetichus (Herodotus ii, 2) believed, certain characteristic phonic elements are nevertheless inborn in every race.

¹ Young animals perform the movements characteristic of their species at a very early age and after the manner of a piece of mechanism. The sparrow is observed to hop only, for the reason that he moves mostly from branch to branch on trees where this sort of movement alone is possible. The lark, on the other hand, is seen to run only. Might it not be possible to confine several generations of sparrows to level ground, and in this manner to teach them to run? Such a transformation of habits would doubtless be effected more easily than an anatomic one, and yet would have sufficient weight with respect to the Darwinian theory. The experiment is allied in character to that mentioned above with the doves.

average but constant excess of intelligence entailing effects not entirely effaced in the following generations, is a certain guarantee of continued evolution.

The underestimation of the intelligence of animals has been a commonplace for centuries. On the other hand, we now not infrequently meet with instances of ingenuous overestimation of the intelligence of animals which are quite as unfounded. I myself raised a warning voice against this overestimation.¹ Any great development of the intelligence of animals is impossible for the reason that it would be both unnecessary and useless in their simple sphere of life. Long ago I observed the mechanical regularity with which beetles always creep *upwards* on a stalk, no matter how often they are turned round, just as other insects fly mechanically towards the *light*, etc. Since that time, the curious and instructive experiments of Jacques Loeb on the heliotropism of animals have appeared, which throw a flood of light upon the mechanics of the lower organisms. But Sir John Lubbock who annihilated in so exact and praiseworthy a manner the illusions respecting the intelligence of bees and ants, appears to me to assert altogether too much intellectual power on the part of dogs.²

I am accordingly of the opinion that the view which assumes a qualitative difference between animal and human intelligence is a relic of an old superstition; I am able to see a *quantitative* difference, a difference of degree only, in the animal scale including man,—a difference that assumes enormous proportions with the distance of the single members apart. The lower we descend the weaker the *individual* memory becomes and the shorter the series of associations at the command of the animal. A similar difference exists between children and grown people. In like manner, I see a quantitative difference only between the *language of man* and the *language of animals*. The same difference exists even between human languages of different degrees of development. Even in the most

¹ *Analysis of the Sensations* (German ed. Jena, 1886. Page 79. English Trans., Chicago, 1897 page, 82-83.)

² Lubbock takes boxes bearing the inscriptions (!) Bread, Meat, Milk, and succeeds in training his dog to *distinguish* them—but unquestionably by the aid of some other characteristic than the inscription. An instance of the common overestimation of the intellect of dogs is the following. A young dog learns to "beg" for sugar. One day it is observed that while alone in the room with a canary-bird which has a piece of sugar attached to its cage the dog of its own accord begins to "beg" for it. This act is interpreted as an appeal to the canary-bird, whereas it is nothing but a simple association of the movement with the sight of the sugar. Think of the number of analogies and of the long series of associations which would have to be at the disposal of the dog if this interpretation were correct! It would be in the position of the negro who begs from a fetish what it is impossible to receive from a fetish. Paradoxical as it may sound, a far higher degree of intellect is required for so colossal a piece of stupidity than is at the disposal of a dog.

highly developed human languages it happens that the full meaning of some utterance is determined entirely by the situation; while it is well known that languages in a low stage of development very frequently have to have recourse to gestures to be understood, so that when spoken in the dark they are partly unintelligible.

As I take it, then, the right course to pursue is to suffer the question as to the origin of language to rest for the time being and in its place to propound the question of how *animal language* has been developed into the *greater wealth* and *greater precision* of *human language*. In this manner, the discontinuity between speaking and not-speaking, which forms the main difficulty of the problem, will be removed, and it will be discovered that the discontinuity never existed in the manner which has been assumed. Lazar Geiger,¹ to whom we owe the most luminous of the contributions to this subject, does actually pursue his investigations along these lines, although reversions to the old form of the inquiry are not wanting in his works. And when these reversions do occur, the most singular and most inept solutions make their appearance. I agree with Noiré² that the manner in which Geiger conceives the origin of the first language-cry is absolutely incomprehensible in the case of a man of Geiger's ability. I am further of the opinion that Noiré has made the most important advances over Geiger. Great merit is to be accorded to Noiré's book even though one does not share his Kantian-Schopenhauerian point of view and though one cannot assume with him the abrupt difference between animal and human intelligence. And although Noiré also in consequence of this latter circumstance sometimes reverts to the old form of the inquiry, his results nevertheless remain valid for the question under discussion.

It will be admitted by every one that sounds expelled unconsciously from the human organism could never have acquired meaning and significance as *phonic symbols* save in the event that things which are observable and have been observed by men in common are designated by them. It will furthermore not be doubted that in the beginning of civilisation the employment of a *symbol*, or even anything like an appreciation of it, could not have been possible save where *extremely strong common interests* required some *common activity* which readily lent itself to the apprehension of all. The *symbol* under such circumstances will associate itself with the *activity*, with the *sensory result* of the activity, and with the sensorily perceptible

¹ Geiger, *Sprache und Vernunft*. Stuttgart. 1868.

² Noiré, *Ursprung der Sprache*.—*Das Werkzeug*.—*Logos*.

medium or instrument of the same. I think that this will be immediately accepted by every one, no matter what his philosophical or scientific position is. The results of my own speculations upon the import of language, of concepts, and of theories, in my own special department of physics, which I undertook without a knowledge of either Geiger or Noiré, point to the same results.¹

The evolution of language, accordingly, is associated step for step with the various forms of activities involved in labor in common. In the precise measure in which the pursuits and industries of men are perfected is the sphere and power of language augmented. It is not to be denied that in higher stages of development events and objects of lesser importance form the occasion for the invention of new terms, just as in family life we frequently observe some chance word uttered in jest acquiring the office of a permanent symbol. But for this to be accomplished the value and import of speech must have already been known from use; there are requisite to it a certain freedom and disburdenment which are certainly wanting in the beginning of civilisation.²

The principal value of language is contained in the fact of its being a medium for the communication of thoughts; and the very circumstance that language compels us to describe the new in terms of the known, or at least to analyse the new by comparison with the known, is the source of a distinct gain, not only for the person addressed but also for the person who speaks. A thought is frequently rendered much more clear by our imagining ourselves called upon to communicate it to others. Language has also a great value for solitary thinking. The sensory elements enter into the most manifold combinations and in these different combinations possess the most varied interests. A word embraces everything that is of importance for some single sphere of interest, and draws forth all the images connected with this sphere, as if they were beaded upon a string. It is remarkable that we can employ word-symbols correctly without having full consciousness of all the images which are symbolised by them, just as we can read correctly without scrutinising each single letter closely. In like manner, we never suspect the existence of a portrait in a portfolio bearing the inscription "Landscapes," even though the contents of the portfolio be not familiar to us.

The ever-recurring view that language is indispensable for every species of thought I must regard as an exaggeration. This

¹ Compare, for example, my *Analysis of the Sensations*, English translation, p. 160 et seq.

² Compare Marty, *Ursprung der Sprache*. Würzburg, 1875.

did not escape the notice of Locke even, who declared that inasmuch as language scarcely ever accorded completely with the facts, it might on occasions constitute even a drawback to thinking. Visualistic thought, which is concerned exclusively with the association and comparison of images, and with the recognition of their agreement or their difference, can be carried on without the intervention of language. For example, I observe an apple on a tree too high for me to reach; I remember that on a former occasion by some good chance I came into possession of another apple by means of a forked branch broken from a tree; I notice a branch of this kind on the ground near me, but see at once that it is too short. This process may be gone through without ever so much as a single word's occurring to me. I am accordingly unable to believe that monkeys, for example, never employ sticks to accomplish certain ends, and never construct bridges by throwing trunks of trees across brooks, for the mere reason that they are not in possession of language and consequently of any concept of *form*, or of any concept of sticks and trees, as of *isolated* movable things which may be sundered from their environment. On the contrary, it may be shown that the inability to make inventions rests upon an entirely different foundation. In saying this, I am far from denying that images also are invested with greater clearness by descriptions in language, and by the accompanying decomposition of their parts into simple and more familiar elements. In abstract conceptual thought language is of course indispensable.

Thinking without words is at least partly realised in every instance where a newly invented concept appears *as the result of thinking*, that is wherever there is new scientific development.

The importance of language for conceptual thought is best observed by an examination of the formation of words and symbols that have been reached in full consciousness during the course of the development of science.

The concept of "exponent" originated in Descartes's having written a multiplied by itself n times, a^n ; at any rate, the concept received for the first time by this act of Descartes an independent standing, and was made capable of further development. Here was really given for the first time the starting-point from which the concepts of negative and fractional exponents and of continuously varying refractive indices and of logarithms were reached. The entire body of algebraic symbols, which is a product of conscious and designed invention throughout, is instructive in other respects also. We learn to operate mechanically with this system without having

constantly present before our minds the full significance of the operations involved. In like manner words also are joined associatively with one another without our possessing in consciousness all the precise images that correspond to them. Like algebra, language involves a temporary disburdenment of thought. In the measure in which our scientific terminology is carried nearer to Leibnitz's ideal of a Universal Character, which is a process actually taking place, the high advantages of such a system will be vividly felt.¹

¹ Compare *Science of Mechanics*, Chicago, 1893, p. 482.

THE JESUITS AND THE MOHAMMEDANS.

BY DR. ARTHUR PFUNGST.¹

VICTOR CHARBONNEL, well known to the world as the Abbé Charbonnel, who tried to convene a Parliament of Religion at Paris but failed and then left the Roman Church, publishes in a recent number of the *Revue des Revues* an interesting article on the origin of the Jesuit order in which he gathers good evidence that Loyola founded this most powerful Roman Catholic institution upon a Mohammedan pattern. That Loyola had many connexions with Mussulmans, both in Spain and Jerusalem, is well known, for he was even suspected of having a secret inclination for Islam, and had to justify his conduct before a court of inquisition.

The arguments upon which the Abbé Charbonnel bases his contention consist mainly in the similarity between Mohammedan religious societies and the regulations of the Jesuit order.

At the time of Loyola, we know of two Mohammedan religious societies in Spain—the Kadryas and the Kadelyas, the latter so called because they were founded by Sid Abdel Kader. The members of this congregation are called *Sufis*, or *Kuans*, i. e., brethren; they are subject to the *Uerd*, i. e., rule. They have a *Dikr*, i. e., common prayer, which must be repeated several thousand times a day, and serves them as a means of mutual recognition. They are absolutely subject to a *sheik*, who governs the whole congregation. They live in *Zanias*, i. e., monasteries, governed by *mokaddems*, or abbots.

The reception of a novice among the Kadryas consists in an apprenticeship of at least a year and a day, in which the novice learns by heart all the rules of the order, and practices the virtues which are expected of him. Thirty to forty days of perfect isolation are required, during which time the novice is not allowed to

¹ Extracted from the *Frankfurter Zeitung* of Nov. 21, 1899.

speaking except with his superior. He must demand in writing what he needs, and is not allowed to take more nourishment than is absolutely necessary for the sustenance of life. The time of sleep is also limited, and is strictly submitted to rule. The novice's employment consists of prayers, meditations, and the reading of sacred books. Unless he be reading, the novice must "close his eyes to illumine his heart." In the same way the Jesuits expect a retirement of thirty to forty days, in which the first week is devoted to a purification of the soul. Light is permitted only for reading and eating. The novice is forbidden to laugh, and must speak to his superior only, who regulates his fasts and vigils. His meditations are limited to such subjects as death, hell, etc. The result of these spiritual exercises is the same both with the Kadryas and the Jesuits, a mental condition which prepares the mind for hallucinations.

The similarity between the rules of the two orders can be traced in detail. The regulations of the Kadryas prescribe: "If a novice is of a common nature, it is advisable to let him proceed by degrees, and only easy prayers should be imposed upon him." The Jesuit rule reads: "If the leader of exercises notices that his disciple shows only inferior natural faculties, it is advisable to impress upon him only lighter exercises."

The same regulations exist among both the Mohammedans and the Jesuits for the repetition of some definite prayers. Even the attitude in prayer is prescribed. The Mussulman Kuan must "raise his eyes in praying, and gaze at one single definite point without swerving"—a method which was known to the Arabians as the best way of self-hypnotisation. The same is literally prescribed for the Jesuit exercises. The Kuans pray in cadences, utilising inspiration and expiration, and pronouncing some sacred word while breathing, then devoting the time of exhaling to meditation thereon. Between the various acts of breathing, no more than one single word must be uttered. In the same way the Jesuits know in their prayers one method which is called "the third way of praying;" and is praying according to the rhythm of breathing as prescribed in the regulations of the Kadryas. And it is stated in the latter that a truly faithful Kuan "will see, and hear, and feel, and smell, and taste" the object of his meditations. These words remind the reader of one of the Jesuit exercises in which it is said that "Hell shall be meditated upon from the point of view of the five senses: first, I see with the eyes of imagination the enormous flames and the souls of the condemned entirely surrounded with

fire; secondly, I hear with the aid of imagination the shouts and cries and blasphemies of the condemned against Jesus Christ and his saints; thirdly, I imagine that I breathe the fumes of sulphur and the odor of the pit or of fetid matter; fourthly, I imagine I see bitterness, tears, sadness, the gnawing worm of conscience; and fifthly, I touch the flames of vengeance and imagine vividly how the souls of the condemned burn."

The Kuans pass through various forms of perfection, and their books say that there are four methods of immersion in God. There are seven signs of true penitence; forty ways of the truly faithful to God; sixty-four ways of becoming estranged from orthodoxy; five prayers of the prophet or rules of orthodoxy. In the book of Jesuit exercises, we read: "There are four rules to make a good choice; three ways of prayer; eight rules to distinguish between good and evil angels; three degrees of humility; eighteen rules of orthodoxy. The Kuans are subject to five probations: first, to serve the poor; secondly, a pilgrimage to the tomb of the prophet or of their founder; thirdly, to serve for one thousand and one days as a menial or day laborer; fourthly, to explain the Koran to the people; and fifthly, to preach with solemnity. The Jesuits have exactly the same probations: to serve for a month some poor patient; to make a pilgrimage to Jerusalem or some other holy place; to serve as a menial in the monastery; to educate children and country folks in the rules of Christianity; and to practice the great sermon. Obviously, the parallelism is complete.

The inner organisation exhibits the same similarity. The old Christian orders are based upon the principle of brotherhood. The law is the same for all. A novice, once received, is a member of the order, and has a right to elect his superior, and can be elected himself. Mussulman societies, however, are graded by hierarchical degrees and dignities, and the brethren are despotically and arbitrarily governed, while the whole organisation and its activity remains secret. This is one of the main characteristics of the Jesuits, who in addition possess exactly as do the Kuans lay members devoted to carrying out, and mostly in secret, the political commands of their superiors. All these features are too similar not to be derived from Mohammedanism, and are utterly unknown in more ancient Christian orders.

The authority of the superiors is absolute among the Jesuits as well as among the Kuans. The sheik can use his authority as it pleases him, and no one is permitted to object. This also is the rule of the Jesuit order. "The general can act just as it pleases

him; one is bound to obey and to respect him as the vicar of Jesus Christ." The entire congregation of the Jesuits convenes only once, after the death of a general for the selection of a successor. The general is "the rule incarnate" of the society; "he alone applies it, he alone can abrogate it." The Kuans allow their sheik to dispose of all the property and possessions of their order. It is the same with the Jesuits. The eighth general congregation has specially declared that he has the right to alter "the intentions of the benefactors, to retain their donations without complying with the conditions under which they were given, whenever he deems them too burdensome upon the society, and whenever it may be done without causing offence or without alienating the benefactors, if still alive." (Degree 41.)

The Kuans are pledged to absolute obedience and must see in their superior the beloved man of God. They are not permitted to reason for themselves.

The Jesuits demand in the same way the renunciation of the judgment of their members, and a suppression of their reason. In his relation to his superiors every single Jesuit should be, as the formulation declares, "Forthwith as a corpse (*perinde ac cadaver*)"; and it is strange that this very word, so characteristic of the Jesuit order, is found in the Moslem book of rules, which is older than Loyola's "Exercises." We read in Rinn's "Marabuts and Kuans" that the book of rules of the sheik Si Soossi declares: "Thou shalt be in the hands of thy sheik as a corpse in the hands of an undertaker (literally 'a washer of corpses')." In the "Exercises" we read: "Those who live in obedience must allow themselves to be guided by their superiors, as a corpse would allow himself to be turned and twisted in all directions." Even the famous motto of the Jesuits, *Ad maiorem Dei gloriam*, appears to be of Mohammedan origin.

According to the Abbé Charbonnel, the spirit and the aim of the Kuans and the Jesuits are the same. The spirit of these organisations is an absolute theocracy, the aim a spiritual government over all worldly affairs. A specialty of the Kuans is their method of assassination and the disposing of adversaries through the murderer's dagger. Charbonnel abstains from drawing further parallels, saying: "We do not mean to make odious comparisons, but we should in this place consider that the Jesuits have frequently justified political assassination." And he adds that this is one of the points which led to the expulsion of the Jesuits in almost all

the states of Europe, and caused Pope Clement XVIII. to abolish the order.

The salient results according to Charbonnel, are the same in both societies,—the Mohammedan Kuans and the Christian Jesuits. He says: "Wherever among the nations Kuanism or Jesuitism penetrated races, political parties, and religions, wherever their spirit was impressed upon them, we find the same corruption, the same fettering of all energy, the same shadows of death. The whole Orient is dead, Uruguay and Paraguay are dead, the republics of South America are dead; Cuba and the Philippines are taken away, otherwise they would be dead too; Spain is dead. All these countries were the possessions of the Sufis or the Kuans, of the clergy and the monks. The dreary work of the sheiks and of the monastic generals has been complemented everywhere through the assistance of real soldiers!

Abbé Charbonnel claims that he abstains from giving his own opinions on the subject, and only allows facts of history to speak. The book appears at an important juncture of events, for the battle between Jesuitism and republicanism is at present at its height, and no one can foretell what the final result of the struggle will be.

MISCELLANEOUS.

RELIGION IN FAIRY TALES.

The ancient fairy tales (and they alone are genuine folklore stories or *Märchen*) date back to pre-historic ages and reflect a civilisation that has now passed away. The tales of Snowwhite, of the stupid Hans, of little Red Ridinghood, of Cinderella, of Dame Holle, etc., have been somewhat changed, especially through the influence of Christianity, yet their most characteristic and original features have not been obliterated but faithfully preserved. The world of fairy tales is a land of forests and of country life. The wayfarer meets giants, robbers, and other dangers. It is the age of matriarchy in which the wise old woman is a great, perhaps the greatest, power in the community, and kinship through the mother alone is recognised. Never a son inherits the kingdom; it is always the daughter; and the hero of the tale becomes king by marrying a princess. The oldest version of Cinderella is preserved in the Norse fairy tale of the Ash-Lad, a male Cinderella who like the stupid Hans goes out to seek his fortune and finds it through his marriage with a princess. The heroes of these stories are frequently children of unknown fatherhood borne by women who have eaten of some herb in the woods, and were therefore not considered as being on equal terms with their brothers though surpassing them in beauty, courage, and wisdom.¹

Fairy tales, being mirrors of a pre-historic age, reflect also the religion of our remote ancestors and we can plainly recognise in them a belief in immortality which is obscured however by the utter absence of a line of division between the land of the dead and of the living. The dead return to life as if they belonged there, and no further particulars being given we might be led to think that they continue in life as before; but as a rule there is nothing to prevent us from assuming that they only give an account of their fate after their departure. The story of Dame Holle is quite instructive; the good girl of the story loses her spindle in the well and being afraid of punishment jumps into it to put an end to her misery. Now she is in the country of Dame Holle, who is none other than the mother goddess that controls the weather and provides mankind with food. She makes the apples grow and presides over the bread-baking. The good girl serves her faithfully and is rewarded by becoming all covered with gold and whenever she speaks, a gold-piece falls out of her mouth. Now the bad girl goes down to Dame Holle but she suffers the bread to be burned and the apples to rot, and proving herself

¹ See Prof. Karl Pearson's instructive article on the subject in his splendid book *The Chances of Death and Other Studies in Evolution*, Vol. II. p. 51-91, published by Edward Arnold, London 37 Bedford St., and New York, 70 Fifth Avenue.

lazy and indolent in everything is punished by being covered with pitch, and whenever she speaks, a toad jumps out of her mouth.

The world of the departed is frequently depicted as the land beyond the river and a little nursery rhyme suggests the idea that we know nothing of the existence of the other shore.

"Gray goose and gander, waft your wings together.

And carry the good king's daughter over the onestrand river."¹

As the rhyme reads now it has become unintelligible. But it appears that that power in nature which mates gander and goose is indispensable for crossing the one strand river.

The religious element is most obvious in the story of Eros and Psyche, an English version of which is preserved in the tale of Beauty and the Beast. The connexion in which Death stands to Love in these stories of ages long past is full of deep thought and suggests the idea that Death, which appears as a monster, a beast, a terror, is after all a friendly power, a kind friend, a blessing. The interrelation that obtains between birth and death was felt by primitive man perhaps more keenly than by later generations. The aged, the crippled, the weary of life go to rest, but so long as love prevails mankind does not die out, *und immer circulirt ein junges, frisches Blut*.²

This observation of the close interrelation between death and love is the central idea of Eros and Psyche, which, judging from the monuments, was very popular in ancient Greece but has been preserved only in the version of Apuleius, as told in his romance *The Golden Ass*. If the redactor of the story as here retold in *The Open Court*, has brought out with more emphasis the *Leitmotive*, by a few additional touches, he believes he has remained faithful to the spirit of the narrative and hopes to have thereby succeeded in setting in relief the serious nature of the story and the religious comfort that underlies this most exquisite production of human fiction.

P. C.

BOOKS ON HISTORY.

Mr. Goldwin Smith has written a splendid review of the political history of England in his *United Kingdom* (New York and London: The Macmillan Co., 1899, two vols., \$4.00). Mr. Smith's works are all noted for the simplicity and clearness of their style, and those who wish to obtain a lucid, connected, and succinct view of English history can do no better than to turn to these pages. They will find Mr. Smith's exposition both critical and impartial.

The second volume of Mr. Thos. E. Watson's *Story of France* has appeared. If one desires entertainment in the reading of history, one will certainly find it in this volume. Anecdote and quotation are skilfully mingled with narrative, and throughout the whole there runs an incessant fire of sarcastic moral comment. The attitude of Mr. Watson towards the history of France is, in fact, eminently that of a moral castigator; his task is to him one of conscience; he is extremely plain and outspoken in his censorial utterances, as he is also in his inferential descriptions of the reigning vices of the old *régime*; and he always points his moral at the expense of the possible facts, whatever may be the situation. The student of the sources of French history will not always be at one with Mr. Watson as to the rel-

¹ See *Book of Nursery Rhymes*, Methuen & Co., 36 Essex Street, Strand, W. C. London, 1897, page 89.

² *Faust*, Prologue.

ative weight of the records which he has used; nor will it be at all in the reader's power to exercise a critical judgment upon the opinions presented. The book, in fine, is decidedly personal in its presentation and tone, yet it has lost on that account none of its fascination for the reader; in this regard we think Mr. Watson has been more successful than in his first volume even. The narrative, or rather portrayal, ceases with the consulate of Napoleon. (New York: The Macmillan Co. Pages, 1076. Price, \$2.50.)

The excellence of the work done in history at Cornell University is well known and we are glad to announce the publication of a *Syllabus of a Course of Eighty-Seven Lectures on Modern European History (1600-1890)* by Prof. H. Morse Stephens (New York: The Macmillan Co.; Pp., 319; Price, \$1.60), which will be found not only to furnish a good idea of the scope and character of the course given at Cornell on Modern History, but also to be of great value to the independent student. It is more than a chronology, and, lacking the narrative, bears some resemblance to Ploetz's well known and admirable epitome of Universal History. A feature which is alone worth the price of the book is the bibliographies, the lists of sources, and the tables of European rulers.

The new and revised edition of Mr. John G. Allen's *Topical Studies in American History* (New York: The Macmillan Co.; Pages, 93; Price, 40 cents) is a sure indication that the little book has served a good purpose. It is intended to give an intelligent view of the leading facts of our history, to fix in the minds of young students "historical centres," about which everything subordinate can be associated; the means is by "topical studies" used in connexion with sources and memory-lessons. It is in fact more of a teachers' guide than a book for students. The method consists of: (1) "Talks to Create Interest"; (2) "Memory-Lessons," giving brief surveys of the periods; (3) "Topical Work With the Sources." The ethical lessons of history are to be emphasized, and the varied implications of every subject developed to the full. How far these "ethical" implications shall be inculcated (for their character is by no means determinate in every case) will depend on the type of mind and the ethical and political proclivities of author and teacher; the attempt to "inculcate" them sometimes leads to very silly and irreparable results; but the attempt will always be made; and it is a sign of progress that in recent text-books sentimentality and sweetness in this regard have been decidedly on the wane. Mr. Allen has not ventured far in this direction, but has wisely left the ethical conclusions to be drawn from the facts themselves. Good chronological tables have been appended to the volume, the educational hints and devices of which will, we believe, be of value to teachers. μκρκ.

KANT AND SPENCER.¹

This little book by the editor of *The Open Court*, which has just appeared in the Religion of Science Library, is devoted to a refutation of the principles of Spencerian Agnosticism and to the elucidation of certain basic problems of philosophy on the ground of a discussion of Mr. Spencer's miscomprehension of Kant. The first essay treats of the "Ethics of Kant," which defends Kant from the charge of having championed a supernatural and unevolutionary view of the ethical prob-

¹ Kant and Spencer. A Study of the Fallacies of Agnosticism. By Dr. Paul Carus. Chicago: The Open Court Publishing Co. London: Kegan Paul, Trench, Trübner & Co., Ltd. Pages, 105. Price, 20c. (18.)

lem; the second treats of "Kant on Evolution," which shows him to be a precursor of Von Baer, Lamarck, and Darwin; the third deals with Mr. "Spencer's Agnosticism;" while the remaining pages are taken up with Mr. Spencer's "Comments" on these articles and the author's "Reply."

Dr. Carus remarks, as to the general importance of the subject discussed and as to the position of Kant and Spencer in philosophy, as follows:

"I do not say that it is necessary to be a Kantist in any sense; but to be a leader of thought, a leader that leads onward and forward, it is indispensable to understand Kant. Mr. Spencer's attitude toward Kant has remained disdainful and even hostile. This is the more to be regretted as Mr. Spencer possesses many rare accomplishments that would naturally have fitted him to become an apostle of progress. He is regarded so by many of his adherents and enemies, but only by those who are superficially acquainted with philosophical problems. I do not hesitate to say that Mr. Spencer is a reactionary spirit. He seems progressive because he objects to the religious dogmas that have been established by tradition, but he is reactionary because he boldly sets up nescience as a philosophical principle, and the time is near at hand when his very enemies will take refuge in his doctrines."

SHUTE'S FIRST BOOK IN ORGANIC EVOLUTION.

For the purpose for which it has been designed, Professor Shute's book is admirably adapted. It is intended to serve as an introduction only to the study of the Development Theory and has been equipped with all the preliminary knowledge necessary to the unprofessional reader and student for a comprehension of the main trend and significance of the doctrine of evolution in all its forms. One is not plunged at once and head-foremost into the technical intricacies of the subject, but is led up gradually to the difficulties by preparatory studies of classification, cellular physiology, zoology, botany, and geology, while there is an excellent glossary of all the scientific terms ready at hand for reference. A special and costly feature of the work is the nine beautiful colored illustrations of butterflies, caterpillars, flowers, etc., illustrating such a phenomena as protective mimicry and the fertilisation of plants. The illustrations are numerous and the material is well arranged and skilfully and clearly put. Chicago: The Open Court Publishing Company. London: Kegan Paul, Trench, Trübner & Co., Ltd. Pages, 285. Price, \$2.00 (7s. 6d. net.)

BOOK REVIEWS AND NOTES.

POMPEII: ITS LIFE AND ART. By *August Mau*, German Archæological Institute in Rome. Translated into English by Francis W. Kelsey, University of Michigan. With numerous illustrations from original drawings and photographs. New York: The Macmillan Company. 1899. Pages, xxii, 509. Price, \$6.00.

Professor Mau has devoted a lifetime of study to the ruins of Pompeii, and he may be regarded as the best-informed authority on the subject. The present book translated from Mau's manuscript by Professor Kelsey of Ann Arbor contains extremely interesting material, and is in its way the most complete exposition of the history as well as topography of Pompeii, from the standpoint of an archæologist. We find here brought together all the knowledge obtainable of the origin of the city before the year of the catastrophe, 79, the record of the catas-

trophe, and the description of its discovery under the ground. We became familiar with the nature of the building materials, the construction of the houses, and the various periods of its architectural style. The book is divided into six parts, which discuss: (1) The public places and buildings, including the temples and theaters. (2) Private houses, special pains being taken with the specially well preserved, typical and conspicuous houses, the house near the porta Marina, the house of the Vettii, of a tragic poet, of a surgeon, of Egidius Rufus, etc. The household furniture also receives its share of attention. (3) The trades and occupations, the fullers and the tanners, and the inns and wineshops. (4) The tombs, especially the burial places near the Nola, Stabian, and Nocera Gates. (5) Art, architecture sculpture and paintings. (6) The inscriptions, public notices, the Graffiti, and business advertisements. In a concluding chapter, Professor Mau dwells on the significance of Pompeii and the representative character of its remains, which being a city of intermediate size give us perhaps a truer picture of the life of antiquity than a larger city might have offered us. The author concludes: "Pompeii, as no other source outside the pages of classical authors, helps us to understand the ancient man."

The population of Pompeii was mixed in its character. The old Oscan stock had not yet lost its identity; but there was in addition a strong foreign element, mainly Greek, with some Orientals. It seems not likely that Christianity had as yet taken a foothold there. Mau says:

"Thus far there has come to hand no trustworthy evidence for the presence of Christians at Pompeii; but traces of Jewish influence are not lacking. The words *Sodoma, Gomora*, are scratched in large letters on the wall of a house in Region IX (IX. i. 26). They must have been written by a Jew, or possibly a Christian; they seem like a prophecy of the fate of the city.

"Another interesting bit of evidence is a wall painting, which appears to have as its subject the Judgment of Solomon. On a tribunal at the right sits the king with two advisers; the pavilion is well guarded with soldiers. In front of the tribunal a soldier is about to cut a child in two with a cleaver. Two women are represented, one of whom stands at the block and is already taking hold of the half of the child assigned to her, while the other casts herself on her knees as a suppliant before the judges. It is not certain that the reference here is to Solomon; such tales pass from one country to another, and a somewhat similar story is told of the Egyptian king Bocchoris. The balance of probability is in favor of the view that we have here the Jewish version of the story, because this is consistent with other facts that point to the existence of a Jewish colony at Pompeii.

"The names Maria and Martha appear in wall inscriptions. The assertion that Maria here is not the Hebrew name, but the feminine form of the Roman name Marius, is far astray. It appears in a list of female slaves who were working in a weaver's establishment, Vitalis, Florentina, Amaryllis, Januaria, Heracla, Maria, Lalage, Damalis, Doris. The Marian family was represented at Pompeii, but the Roman name Maria could not have been given to a slave. That we have here a Jewish name seems certain since the discovery of the name Martha.

"In inscriptions upon wine jars we find mention of a certain M. Valerius Abinnerichus, a name which is certainly Jewish or Syrian; but whether Abinnerich was a dealer, or the owner of the estate on which the wine was produced, cannot be determined. In this connexion it is worth while to note that vessels have been found with the inscribed labels, *garum castum* (for *castimoniale*?), *muria casta*. These fish sauces, prepared for fast days, were used especially by the Jews.

"Some have thought that the word *Christianos* can be read in an inscription written with charcoal, and have fancied that they found a reference to the persecution of the Christians under Nero. But charcoal inscriptions, which will last for centuries when covered with earth, soon become illegible if exposed to the air; such an inscription, traced on a wall at the time of the persecutions under Nero, must have disappeared long before the destruction of the city. The inscription in question was indistinct when discovered, and has since entirely faded; the reading is quite uncertain. If it were proved that the word "Christians" appeared in it, we should be warranted only in the inference that Christians were known at Pompeii, not that they lived and worshipped there. According to Tertullian (Apol. 40) there were no Christians in Campania before 79."

A HISTORY OF THE WORLD. Earliest Peoples. By Zenaïde A. Ragozin. New York: William Beverley Harrison. 1899.

The result of the latest researches in anthropology as well as Assyriology are here condensed in a popular form and related in an unpretentious manner so as to be excellently adapted to the child's mind. The illustrations are well selected and as numerous as they ought to be in a book of this kind.¹

The adapting of the elementary facts of natural science to the comprehension of young children is by no means an easy task, and must to a large extent be left to the skill and momentary insight of the individual instructor. One of the best known systematic attempts in this direction is Murché's *Science Readers*, which have recently been revised by Mrs. L. L. W. Wilson, of Philadelphia. (New York: The Macmillan Co. Books I, II, and III, 60 cents, 75 cents, and 90 cents respectively.) These three books are adapted to secondary grades comprising pupils who are in their third and fourth years of school-work. The lessons are progressive and treat of the properties of bodies, of the common types of plants and animals, the commoner metals and minerals and of their uses in the arts, of manufactures, of meteorology, etc. Formal lessons and sometimes observations and experiments are intended to precede the readings, which are very simple and are accompanied by conventional illustrations.

Voices of Hope, and Other Messages From the Hills, is the title of a sincere and thoughtful volume "on the problem of life, optimism, and the Christ," by Horatio W. Dresser. "Without assuming to know life's secret," the author says, "I shall address myself to the sceptic, the lonely soul, and the troubled heart, and try, as an observer of our human world and a lover of Nature, to share some of the facts and beauties gathered along the way as I have watched the glorious awakening of the mountain summits of life." To us, there is a tinge of mysticism in many of the utterances of Mr. Dresser; but this mysticism is rather one of form than content. "Progress," he claims, "is the message proclaimed by the strongest voice of hope. . . . The clear, cool wind of science is blowing from the westward. We are destined to view the splendors of Alpine distinctness of thought; and woe be to him who in that day shall try to take refuge in the vales of conservatism, dogma, and despair!" (Boston: Geo. H. Ellis. Pages, 213. Price, \$1.50.)

¹We do not intend to find fault with an author who has accomplished his task well. But we would call her attention to the proposition on p. 72, that "from the true science of astronomy the false science of astrology took its rise." This is an idea which inverts history and is as untenable as would be the assumption that alchemy sprang from chemistry.

The latest basis of philosophy is breathing, which has been developed by Mr. Emil Sutro in a book called the *Duality of Voice, An Outline of Original Research*. There was never a "fabric of vision" so baseless that it could not stand the strain of some colossal superstructure of thought, and it will be a profound consolation to Mr. Sutro to know that his is not the first system of philosophy to be built on wind. Mr. Sutro is the discoverer of "the voice of the œsophagus," from the depths of which well the thought-fraught and heart-laden moans and aspirations of the æons. *Im Anfang war die Luft!* The chapters of Mr. Sutro contain many excellent remarks on voice-culture and on the teaching of the correct pronunciation of foreign languages. It will find many readers. (G. P. Putnam's Sons: New York and London. 1899.)

The success of Ralph Waldo Trine's books, *In Tune With the Infinite*, *What All the World's A-Seeking*, and *The Greatest Thing Ever Known*, is undoubtedly due to the ideality of aim they pursue and to the sentimental fervor with which their author enforces his principles of right character-building. Their titles are against the books, and a grave objection to them, in our mind, is that they appeal to the weak sides of human character to establish and support the strong. Mr. Trine has recently written an attractively-bound pamphlet of the same character, entitled *Every Living Creature, or Heart-Training Through the Animal World*. It is sound in its basal pedagogic principles, that "the training of the intellect is alone not sufficient," and that "we are all, including our dumb fellow-creatures, 'parts of the one great whole.'" Also, it is thoroughly Buddhistic in its doctrines, deprecating hunting, vivisection, the slaughter of birds for their plumage, "flesh-eating," and the docking of horses' tails. Mr. Trine has also just added a few words to his *What All the World's A-Seeking* in the shape of a thirty-page pamphlet on *Character-Building Thought-Power*. (New York: Thomas T. Crowell & Co.)

The key-note of Mr. J. Howard Moore's *Better-World Philosophy*, or *A Sociological Synthesis*, is to be found in the defiant and militant deliverance of his prefatory words: "This book does not claim to be infallible,—simply serious. No being knows. He thinks he knows. A few grams strategically shifted here and there in his organism, and he knows, or thinks he knows, something altogether otherwise. All is attitude and relativity." Mr. Moore sees the problem of sociology very clearly,—it is the conflict of brute natural egoism with the altruism demanded by social ideals,—and he has attacked it boldly, with some originality of expression, though we cannot say with great originality of thought. The best chapter is that on "Individual Culture." (Chicago: The Ward Waugh Co. Pp., 275. Price, \$1.00.)

Miss Mary Morgan (Gowan Lea) has published a dainty little pamphlet of poetry under the name of *Träumereien*.

The latest editions of the Bibelot Series are: *Adonais, An Elegy on the Death of John Keats*, by Percy Bysshe Shelley; *The "Orfeo" of Poliziano*, translated by John Addington Symonds; and *Leonardo da Vinci*, by Walter Pater. (Thomas B. Mosher, Publisher, Portland, Me. Price, 5 cents each.)

The Funk & Wagnalls Company, of New York, have published in a very attractive form *The Collected Poems of Mr. Richard Realf, Poet, Soldier, and*

Workman. Mr. Richard J. Hinton has supplied a biography of Mr. Realf. There are several well-executed portraits in the book. (New York and London: Funk & Wagnalls Co. 1898. Pages, cxiii, 232.)

We have long omitted to mention the publication of a collection of exemplary liberal funeral sermons which were made some time ago for the *Freidenker*, of Milwaukee, by Dr. F. W. Dodel. The selections made are quite appropriate for the occasions for which they are intended, and together with the appendix of poems and quotations will doubtless be useful to German free-thinkers. (*Requiescat!* By F. W. Dodel, M. D. Milwaukee: Freidenker Pub. Co. Pages, 247.)

The Truth-Seeker Company, of New York, have issued a second edition of Matilda Joslyn Gage's *Woman, Church, and State, A Historical Account of the Status of Woman Through the Christian Ages: With Reminiscences of the Matriarchate*. Mrs. Gage is a sturdy and untiring champion of woman's rights, and her discussions of the problem set by her book will be found lacking neither in incisiveness nor in vigor. (Price, 75 cents.) The same company has just issued a *Collection of Forms and Ceremonies for the Use of Liberals* (25 cents).

A useful book for teachers is *The Physical Nature of the Child, and How to Study It*, by Dr. Stuart H. Rowe, now of the New Haven schools, and formerly of Mankato, Minnesota. The tests and experiments for determining the physical normality of school children are here made accessible to every one, and will justly claim the attention of parents as well as of educators. Such subjects as defects of the senses and the motor activities, enunciation, nervousness, fatigue, disease, posture, school technique, school sanitation, and home-hygiene, are very practically and sensibly treated. (New York: The Macmillan Co. Pp., 207. Price, \$1.00.)

Dr. Elisha Gray writes very entertainingly of Science in his little book, *Nature's Miracles*. The topics are fairly well connected as to matter, the general subjects of the present volume being Earth, Air, and Water. If one desires to know how coal, slate, salt, dew, clouds, winds, etc., are formed, he may learn it in a simple and brief form from this book. Dr. Gray is an inventor of note, and was organizer and president of the World's Fair Congress of Electricians in 1893. He has ventured some brief semi-theological speculations on cosmogony in his Introduction with which we cannot agree. We go beyond the statement that one cannot believe that "the Power that made nature's laws" "will ever see fit to change them," and should say that he could not change them even if he saw fit. Granting there were such a power, he would be what the lawyers call eternally "estopped" from altering his original legislation; the universe has its constitution, its Magna Charta, and will not suffer it to be trampled upon; and rather than sit lonely and neglected in the cold Olympian regions, eternally checkmated by his own creations, the most graceful act for "the Power" to do would be to abdicate, which in the more rigorous philosophical cosmogonies he has done. (New York: Fords, Howard & Hulbert. Pp., 243. Price, 60 cents. A second volume is to follow.)

Among the most delightful sketches we know of in recent literature are the *Little Journeys to the Homes of Eminent Painters* by Elbert Hubbard, published monthly by Putnam's Sons (New York and London. Price, 10 cents each). The series for 1899 includes Michael Angelo, Rembrandt, Rubens, Meissonier, Titian, Van Dyck, Fortuny, Scheffer, Millet, Reynolds, Landseer, and Doré. These

sketches offer just the amount of matter,—and it is a great deal in a brief compass,—that a busy man needs to obtain a vivid and enduring impression of the personality and achievements of the great painters. They portray precisely what is wanting in the formal memoirs,—the charm of the human element,—and they are all enlivened by a perennial humor and a rich, almost kaleidoscopic practical philosophy.

Francis Ellingwood Abbot makes a plea for Universal religion in contrast to sectarianism in a pamphlet entitled *World Unity in Religion and Religious Organisation*, published by the First Free Church of Tacoma, Wash., with whose ideals he is identified. He says :

"Our little church differs from all the other churches in acknowledging our ultimate human dependence upon nothing but the ideal whole of all churches, namely, the Universal Church of Mankind ; and in refusing to acknowledge as our true whole the Unitarian church, or the Protestant church, or the Christian church, or any other mere Sect of Religion. This is our difference, and it is vital. But we resemble all other churches in striving to live the upward life towards the human-divine ideal ; and this resemblance is just as vital as the difference."

A brief explanation and discussion of the new *Salta-game*, which has recently sprung into great favor in Germany has been made by Dr. Hermann Schubert, of Hamburg. The game is played on a checker-board having ten squares on each side. The pieces bear symbols of the sun, moon, and stars. None of them are taken from the board during the play, and the object of the game is for each player to put the pieces in the same order of battle on his opponent's side as they were originally on his own. (Leipzig : G. J. Göschen. Pages, 39. Price, 60 pf.)

Prof. C. H. Toy, of Harvard University, discusses in the present number of Macmillan's new periodical, *The International Magazine*, the recent works in the science of religion, and in comment on Professor Tiele's work he says : "Religion "proper, the sentiment of union with God, has no conceptions of its own, but "draws its framework from science and ethics. The particular conception of God "current in any community is a product of reflexion ; the current morality springs "from social custom and thought ; the devotional usages are shaped by the man- "ners and general social ideas of the people. It will greatly help our comprehen- "sion of religious history to note that all improvements in religious ideas are due "to the general advance of civilisation ; all civilised communities have reached "about the same conceptions of God and of morality."

The *Poems of Nature and Life* by John Witt Randall originally appeared under the title of *Consolations of Solitude* in 1856 for private circulation only. They have now been carefully re-edited and gathered together in a sumptuous volume, with portraits, by Francis Ellingwood Abbott, who has written a long introduction on the Randall family. "The superlative value" of the poems of Mr. Randall, says Dr. Abbot, "lies in the man they reveal—in the self-reporting quality of his nature and his character." There is in them, he says in another place, "something of power, originality, beauty, wisdom, true inspiration, which must still charm those who can discern what is most precious in literature." (Boston : George H. Ellis. Pages, 566.)



PSYCHE AT NATURE'S MIRROR

AFTER PAUL THUMANN

Frontispiece to *The Open Court*.

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MONEY.¹

BY LEO N. TOLSTOI.

I.

MONEY! What is money? Money represents labor. I have met well-informed men who go so far even as to assert that money represents the labor of the man possessing it. I must confess that formerly I also shared, in a vague manner, the same opinion. But having decided to find out once for all what money really was, I turned to science.

Science says that, in itself, money involves nothing unjust or harmful, that it is a natural instrument of social life. It is necessary (1) for the convenience of exchange, (2) for the establishment of standards of value, (3) for the effecting of savings, (4) for facilitating payments.

The patent fact that, having three superfluous rubles in my pocket, I have only to whistle to collect about me a hundred men in every civilised city ready to do my bidding and to perform acts the most hazardous, shocking, and degrading, that, I say, comes not from money but from the complex economical conditions of society. The domination of a certain set of men over others comes not of money but is due to the fact that working men receive incomplete compensation for their labor. The undervaluation of labor is caused by certain peculiar attributes of capital, rent, and wages, by their complex correlation as well as by certain errancies in the production, distribution, and consumption of goods. To use a Russian adage, men who have money can twist ropes of those who have it not.

But science says, all this is wide of the mark. In all produc-

¹ Translated from the Russian by Paul Borger.

tion, it contends, three factors participate—land, capital, and labor. The different correlations of these three factors of production, the first two being out of the hands of the workingman, and their consequent complex combinations are the cause of the enslaving of one set of men by another. What is it that has produced this moneyed kingdom which so shocks everybody by its injustice and cruelty? How is it that one set of men has come to dominate another by its money? Science says: because of the separation of the factors of production and of the combinations thus created acting adversely to the workingman.

The answer has always seemed to me strange, not only because it slurs over the one important aspect of the question,—the rôle of money,—but also because it makes a subdivision of the factors of production which to every unsophisticated man must appear extremely artificial and unsatisfactory. Three factors, it is asserted, participate in all production,—namely, land, capital, and labor,—and it is assumed that the products (or their value, money) are distributed naturally among the persons possessing the several factors: rent—or the value of land—to the land owner; interest to the capitalist; and wages, for labor, to the workingman.

Is this really so? Is it correct that three factors only participate in production?

As I now write, there is a production of hay going on around me. What enters into this production? I am told: the land which grows the hay, the capital (the scythes, rakes, pitchforks, wagons etc., requisite for the gathering of the hay), and, lastly, the labor of the hay-makers.

But I can see that this is wrong. Apart from land, there participate also in the production of hay, the sun, water, that social and political order which preserved the fields from trespassers etc., the skill of the workingmen, their ability to communicate with one another, and many other additional factors which somehow or other are not considered by political economy. The energy of the sun is just as much a factor of production, if not more so, than the land. Situations actually occur where men (in cities, for instance) assume the right of excluding the sun from others, by means of walls and trees; why, then, is it not included among the factors of production? Water is another factor quite as indispensable as land. It is the same with air. Public security is also an indispensable factor, as are also the food and clothing of workingmen,—a fact admitted by some economists. Education, enabling one to apply oneself intelligently to work, is also a factor.

I could fill a whole volume with similar omitted factors of production. Why, then, are these three particular factors of production alone selected as the basis of economical science? Why are not the sun's rays, water, food, and knowledge also regarded as factors of production? It may be because men assert only in rare cases their claims to utilise the sun's rays, the air, or the water; whereas we constantly assert our claims to the use of land and implements of labor. I see no other basis for it, and I regard, therefore, the subdivision of the factors of production into three only as altogether arbitrary.

Possibly this subdivision is so characteristic of human affairs that wherever economical relations have developed, these three factors of production have of necessity made their appearance. Let us see if this is really the case.

I shall take as my illustration the Russian colonists.

Those colonists come into a new district, settle down, and begin work. It never occurs to them that the man who is not actually using the land has any claim to it, nor does that land in and of itself advance any distinct claim. On the contrary, the colonists consider the land a common property and consider everybody as having the right to cultivate whatever part of it he pleases and as much of it as he needs. In cultivating their land and their gardens, and in building their houses, the colonists use implements of labor, and here again it occurs to no one that the implements of labor of themselves are capable of producing revenue; nor do these implements themselves, in the shape of capital, set up any claims. On the contrary, the colonists are quite conscious of the fact that the acquisition of any increment accruing on the implements of labor, on the loan of capital or of food, would be an injustice. The colonists work on free land either with their own, or with tools borrowed without charge from others, and either everybody works for himself, or else all work in the common interest. In such community no rent or interest on capital or labor for wages is to be found.

In speaking of such a community I do not indulge in fantasies, but describe what actually has been and is taking place at present not only among the Russian colonists but everywhere where men's natural tendency is not displaced in some way or another. I describe what to every mind appears natural and wise. Men settle on a piece of land and everybody selects his proper occupation, and, having arranged the necessary requisites for his task, begins work. If it suits their convenience, they form associations; but

neither in separate households nor in association are there any other distinct factors of production, than labor and its necessary conditions: the sun which gives warmth to all, the air which men breathe, the water which they drink, the land on which they labor, the clothing for their bodies, the food for their stomachs, the spade, the plough, and the various other tools with which men work; and it is evident that neither the rays of the sun, nor the air, nor the water, nor the land, nor the clothing covering their bodies, nor the implements with which they labor, can belong to any one but those who utilise the rays of the sun, who breathe the air, drink the water, eat the bread, cover their body, work with the spade, for the reason that all this is necessary only to those who can utilise it. And whenever men act in this wise it is because it is characteristic of men to act so, that is, to act intelligently.

Thus, in examining the evolution of the economical relations of men I fail to see that the subdivision of the means of production into three factors is inherent in men. On the contrary, it is foreign to them, and it is unwise.

But possibly with the growth of population and the progress of culture this division may be unavoidable; and since this division has actually taken place in European society, we have got to acknowledge it as an accomplished fact.

Let us see if this is so. We are told that in Europe this division of factors is already accomplished; that some men own the land, others the implements of labor, and that still others are deprived of both. "The workingman is deprived of land and of the implements of labor." We are so accustomed to this assertion that its oddity no longer strikes us. But if we look into it, we instantly see its injustice and even its absurdity. The expression is a hopeless contradiction. The idea of a workingman involves the idea of the land he is living on and the implements he is working with. If he did not live on land (or on the earth) and had no implements for work, he would not be a workingman. There never was nor ever could be a workingman deprived of earth and of the implements for work. There can be no such thing as an agriculturist without land to work on, without a scythe, a cart, a horse; there can be no such thing as a shoemaker without a house on the land, without water, air, and tools to work with. If the agriculturist has no land, no horse, no scythe, and the shoemaker has no house, no water, no awl, it means that somebody has ousted him from his land, taken away or cheated him of his scythe, cart, horse or awl; but it does not at all signify that agriculturists can exist without ploughs, or shoemakers with-

out awls. A fisherman is inconceivable on dry land and without nets, unless it be that he has been driven off the water and deprived of his nets. Men can be driven from one spot of the earth to another and can be deprived of the implements of labor and be compelled to work with other men's tools in the production of things they do not want, but it does not follow from this that such a state of things reveals the true and actual properties of production; it simply signifies that there arise occasions when the natural properties of production are disturbed.

If we must accept as factors of production all those things of which the workingman may be deprived by another man's violence, then why should we not consider the claim to the person of a slave as a factor of production? Why not accept claims to the sun's rays, to the air, water, etc., as such a factor? A man can erect a wall that bars the sun from his neighbor, another man can divert a river into an artificial basin and contaminate its water, another may consider every man his property; but neither the first, nor the second, nor the third can ever possibly make of his pretension a basis for the division of the factors of production, even if such a pretension were forcibly put into effect. And therefore it is just as unjust to regard the fictitious pretensions of men to land and to the implements of labor as factors of production, as it is to regard an imaginary exclusive right to the sun's rays, to the water, to the air, or to another man's person as factors. Men may *claim* the exclusive right to land and the implements of work just as men have asserted pretensions to the workingman's person; and just as men have claimed for themselves the sun, the water, and the air, so men have driven the workingman from place to place and deprived him of the results of his labor as those accumulate, and of the implements of that labor, and have compelled him to work not for himself but for a master, as is the case in factories. All this is possible. Yet there can be no workingman without land or implements, just as there can be no man that is the property of another notwithstanding all the assertions to the contrary in times past. And just as the assertion of the right of property in a man's person could not deprive a slave of his innate property to seek his own happiness and not his master's; so now the assertion of the right of property in land and in the implements of the labor of other men cannot deprive the workingman of that attribute which is inherently characteristic of every man, namely, to live on land and to work out with his personal implements or those of the community, whatever he may deem useful for himself.

All that science can say in the present economical situation, is that there the pretensions of certain men to land and to the implements of the workingman's labor actually obtain, and that, therefore, for a certain portion of those workingmen (not all, by any means) the proper conditions of production have been violated, and not that this casual violation of the law of production is the actual law of production itself.

By his assertion that this division of the factors of production is the fundamental law of production, the economist is in the position of the zoölogist who, from his observation of many sparrows living in cages and having trimmed wings, would conclude that trimmed wings and the cage with its little cup of water were the fundamental conditions of birds' existence, and that their natural life was exclusively composed of those three factors. But no matter how many sparrows with trimmed wings live in cages the zoölogist has no right to regard cages as the essential characteristic of birds. And no matter how many workingmen have been wrested from their places and deprived of their products and their means of labor, the natural characteristic of the workingman is still to live on land to produce with his implements whatever he needs.

The pretensions of certain men to the land and the implements of the workingman exist now, just as in the ancient world the pretensions of certain men to the persons of others existed; but just as now the division of men into masters and slaves after the manner of the Ancient World is impossible, so also now is the division of the factors of production into land and capital after the fashion of the economists of the contemporary society impossible. Yet these unlawful pretensions to the liberty of others science condescends to call *natural* properties of production. Instead of laying its foundation in the natural properties of human societies, science has founded itself on a private and special case and, in its desire to justify that case, has actually sanctioned one man's exclusive right to land which yields food for another man, and to those implements of work which another man must use, for this purpose, i. e., it has placed its sanction on a right which never existed, which never could exist, and which involves a contradiction on the face of it, because a man's right to land which he is not cultivating is essentially a right to use land which he does not use; and an exclusive right to implements is a right to work with implements which he does not work with.

Science, by its division of the factors of production, asserts that the workingman's natural condition is the unnatural condition we see him in; exactly as in ancient society it has been

asserted, by the division of men into citizens and slaves, that the unnatural condition of slaves was a natural attribute of man. This division then, which has been accepted by science to sanction an existing evil which it has made the foundation of its researches, explains why science seeks in vain for explanations of the existing phenomena and, refusing the clearest and the simplest answers to the pending questions, gives answers which are utterly meaningless.

The question put by economical science is this : How is it that men who have land and capital possess the power of enslaving those who have neither the one nor the other? The answer dictated by common sense is that this state of affairs is caused by money, which actually possesses the power of enslaving men. But science denies this, and says : it is caused not by any property of money, but is due to the fact that some men have land and capital, while others do not have it. We ask why it is that those having land and capital can enslave those not having it, and they tell us, "Because those not having land or capital, do not have it. But this is just what we are inquiring about. The depriving men of land and of capital is itself the act of enslaving. Their answer reminds us of the famous maxim : *facit dormire quia est in eo virtus dormitiva*. But life incessantly thrusts forward this vital question, and science is beginning to see it and essays to answer it, but is unable to do so, having to quit its basis, and is thus turning round and round in its enchanted circle.

In order to arrive at an answer science must, first of all, renounce its false division of the factors of production, i. e., its mistaking of the consequences of the phenomena for their cause, and must seek, at first, the nearest and then the remoter cause of the phenomena which form the subject of its research. Science must answer the following question : What is the cause of the fact that some men are deprived of land and of the implements of labor, and that these are in the possession of others? Or, what is it that produces the alienation of land and of the implements of labor from those who cultivate the land and work with the implements? As soon as science will put its question in this form, new considerations will present themselves which will controvert all the axioms of the old quasi-science which is turning in endless circle of its assertions that the miserable situation of the workingman is caused by misery.

To the simple people it is manifest that the most immediate cause of the enslaving of certain men by others is money. But science denies this and says that money is only an instrument of

exchange having nothing to do with the enslaving of men. Let us see if this is so.

II.

Whence does money come? In what conditions of society does money always exist, and, again, in what other conditions of society is money never used?

Imagine a little tribe in Africa or Australia living after the fashion of the ancient Sarmatians, or Slavs. This little tribe ploughs, raises stock, and cultivates gardens. We hear of them from the beginning of history. History generally commences with an incursion of conquerors. These latter invariably do one and the same thing: They deprive the people of everything they can: their stock, grain, and clothes, make captives of some of them, and depart. In a few years the conquerors return, but the little tribe has not yet recovered from the former devastation and there is nothing to take from them, so the conquerors devise a new and a better means of utilising the energies of the little tribe.

The means are very simple and come naturally into the head of every man. The first method is individual slavery. But this method has the inconvenience of necessitating the management and feeding of all the working individuals of the tribe, and there naturally presents itself a second method; viz., to allow the little tribe to remain on its land while appropriating that land and partitioning it among the invading force and thus utilising the produce of that tribe through the medium of the conquering force.

But this also has its inconveniences. The force or detachment has to superintend and care for all the processes of production, and so a third method is introduced, just as primitive as the first two, the method, namely, of periodically levying a ransom. The conqueror's aim is to levy as much as he can of the products of the labor of the conquered. Evidently, in order to levy as much as he can, the conqueror must take such articles as have the greatest value for the tribe, but are not bulky and admit of being easily preserved,—articles such as skins and gold. And thus the conquerors impose a certain tax on skins and gold on every household, or tribe collectively, and by means of this tax they avail themselves in a very convenient manner of the productive powers of the tribe in question. Skins and gold disappear almost entirely from among the tribe and, consequently, the conquered must again sell to the conqueror and his host for gold everything they still have: their property and their labor.

This took place in ancient times, in the Middle Ages, and it is also in operation at present. In the Ancient World, with the frequent conquests of one people by another and in the absence of the idea of human equality, individual slavery was the most universal method whereby one set of men dominated another, and individual slavery was the centre of gravity of that domination. In the Middle Ages the feudal system, i. e., the landed interest, connected with serfdom, partly replaced individual slavery, and the centre of gravity of domination now shifts from persons to land. In modern times, with the discovery of America, the growth of commerce, and the influx of gold, which is the accepted implement of exchange, monetary taxes, along with increase of governmental power, becomes the principal means for enslaving men, and on these last all the economical relations of men are now based.

I have lately read an article by Prof. Yanjoul on the recent history of the Fiji Islands. If I had to invent the vividest picture possible of the way which the obligatory exaction of money assists in the enslavement of one group of men by another, I could imagine nothing more vivid and convincing than this actual and truthful piece of history, based on facts that have taken place but recently.

There lives on certain islands of the Southern Pacific, in Polynesia, a little tribe, called the Fijians. The entire archipelago, according to Professor Yanjoul, consists of small islands covering some 7000 square miles. One half of this territory is inhabited by a population of some 150,000 natives and 1500 whites. The aborigines issued from their wild state long ago, are distinguished for their ability among the other natives of Polynesia, and are a people capable of development, which they have proved by becoming excellent agriculturists and stock-raisers. The people prospered, until in 1859 the new kingdom found itself in a predicament: the people and its representative, Cacabo, wanted money. The kingdom of Fiji stood in need of 45,000 dollars for the payment of an indemnity to the United States of America for an outrage claimed to have been committed by natives on some American citizens. With this end in view the Americans sent a squadron which seized some of the best islands as security and threatened the bombardment and destruction of the villages should the indemnity not be paid within a certain time. The Americans and their missionaries were the first colonists in the Fiji Islands. Selecting and possessing themselves of the best portions of the archipelago, under one pretext or another, they hired, through special agents and iron-clad contracts, gangs of natives for the establishment and cultivation of

cotton and coffee plantations. Collisions were thus unavoidable between the planters and the natives who were regarded by the former as slaves, and this led to the matter of indemnity.

Despite their prosperity the Fijians preserved even down to our day the forms of natural husbandry so called, the same as prevailed in Europe in the Middle Ages. Money there was none among the natives and their trade was of the nature of barter; goods were exchanged for goods and many communal and governmental taxes were paid in kind. What was there for the Fijians and their king, Cacabo, to do in the face of the categorical demand by the Americans for \$45,000, under penalty of the gravest consequences in case of non-compliance? The very figures presented something incomprehensible in the eyes of the Fijians, to say nothing of money which they had never seen in so large an amount.

Cacabo, on consultation with other chiefs, decided to turn to the English and to petition them to take the islands under their protectorate and, later, under their dominion. But the English were cautious and slow in rescuing the half-savage king. In place of a direct answer they, in 1860, sent a special expedition to explore the islands and find out whether it would pay to annex them and satisfy the American demands.

In the meanwhile the American government insisted on the payment and kept possession of some of the best points as security; then having gotten a better view of the native wealth, the original 45,000 dollars grew to 90,000 dollars and a further increase was threatened in case further delay occurred. In this tight fix, poor Cacabo, not familiar with European methods of credit, and acting on the advice of some European merchant colonists, looked to Melbourne for money, and expressed his willingness to accept any conditions whatever even to the extent of surrendering his kingdom to private persons. There was immediately formed in Melbourne a commercial stock company. This organisation, calling itself the Polynesian Company, concluded a contract with the King on conditions highly favorable to itself. Assuming the payment of the American indemnity in instalments, the company receive at first 100,000 and later 200,000 acres of the best land, a perpetual immunity from customs and taxes for all its factories, operations, and colonies, and an exclusive right for an indefinite time of establishing in the Fiji Islands banks with unlimited powers of issue.

From the time of that contract, which was definitely concluded in 1868, there rose alongside of the native government with Cacabo, another power, a mighty trading company, with vast

estates on all the islands, and with a predominant influence on the administration. Up to that time the government of Cacabo met its wants with such material means as could be found in taxes in kind and in a small customs' revenue. With the consummation of the contract and the establishment of the powerful Polynesian Company, the financial conditions changed. The greater part of the best lands went over to the company, consequently the revenue decreased; on the other hand, the company had secured for itself the free import and export of merchandise, and here again the revenue decreased. The aborigines, i. e., 99 per cent. of the population, had always been bad payers of customs' duties, for they used next to nothing of European wares, if we exclude a few textile goods and certain metal articles, and now added to this came the absolute exemption of the Polynesian Company and of all the well-to-do Europeans from customs' duties,—a state of affairs in which the income of King Cacabo was reduced almost to a minimum.

And in this predicament, our Cacabo again seeks the counsel of his white friends as to the means of averting the calamity, and at their suggestion introduces the first direct tax in the islands, which, in order to save himself many inconveniences, he levies in the form of money. The tax was universal and amounted to one pound sterling on every man and four shillings on every woman in the Islands.

As we have said, even to our day, natural husbandry and barter in commerce prevail entirely in the Fiji Islands. But few natives have money. Their wealth consists exclusively of raw products and of stock. But the new tax demands of the natives a payment of money at stated periods. Up to this time the natives were not accustomed to individual obligations towards the government except personal service; all dues, as they came round, were paid up by the communities or villages and in the products of the fields which were the sole source of income. There was but one issue for the natives: to seek money among the white settlers, i. e., to turn either to the trader or to the planter. To the first he had to sell his staples at any price whatever, since the collector of taxes demanded the money at a given date, or else he had to borrow on the future crop, of which the trader availed himself and charged an exorbitant interest. Or, again, he had to turn to the planter and sell his labor, i. e., to engage as a laborer. But, in consequence of the great simultaneous offer of labor, the wages on the islands were very small, no higher, according to the showing of the present administration, than one shilling a week for an adult man or two

pounds, twelve shillings a year, and, consequently, in order to raise the money requisite for his own ransom, not to say for that of his family, the Fijian had to abandon his home, land, and island and, emigrating to some distant place, bind himself into slavery to some planter for at least six months in order to gain one pound to pay his tax with. And in order to pay the taxes for his family he had to seek other means.

The result of this state of affairs is evident. From his 150,000 subjects Cacabo succeeds in collecting about 6000 pounds, and now begins the forcible collection of the taxes, a thing unfamiliar to the people so far. The local administration, incorruptible heretofore, very soon combines with the planters who are now ruling everything. For the non-payment of taxes the Fijians are arraigned in court and are sentenced, with costs, to confinement in jail for periods of not less than six months. The prison is replaced by the plantation of the first white man who will pay the fine and the costs of trial of the prisoner. In this manner the whites get an abundant supply of very cheap labor. This compulsory labor was permitted at first for periods not exceeding six months, but later the venal justices found it possible to extend the terms to eighteen months and, afterwards, to renew the sentence.

In the course of a few years, the picture of the economical life of the Fijians changed entirely. Populous and flourishing districts became deserted and impoverished. The entire male population, excepting the old and the feeble, was working for the foreigners, for the white planters, simply to earn the money required for the payment of their taxes and the appendent costs. The Fijian women never do any agricultural work and, therefore, in the absence of the men, their households went to ruin or were abandoned. In a few years half of the native population was converted into slaves of the white planters.

In order to ameliorate their condition, the Fijians again turned to the English government. A new petition appeared covered with the signatures of the most noted personages and chiefs begging for annexation. The petition was handed to the British Consul.

By this time England, through its scientific expeditions, had succeeded not only in exploring but also in surveying the islands, and had come to look upon this beautiful spot of the Globe, with its rich resources, as a valuable acquisition. For these reasons the negotiations were crowned with success and in 1874, to the great dissatisfaction of the American planters, England entered officially into possession of the islands. Cacabo died and to his heir was

assigned a small pension. The administration was entrusted to Sir William Robinson, the governor of New South Wales.

In the first year of the annexation the archipelago had no separate administration but was under the control of Sir W. Robinson who appointed a local administrator. In taking the islands under its wing, the English government had a difficult problem to solve. The natives first, of all, expected the abolition of the hated personal tax, while the white colonists (partly Americans) mistrusted the English administration, and another portion of them (the English) counted on all sorts of favors, as, for instance, the sanction of their ownership of the natives, the confirmation of their land grabs, etc. The English administration proved, however, to be worthy of its high task and its first act was the abolition of the individual tax which had brought about the enslavement of the natives for the benefit of a few planters.

But Sir W. Robinson met right here a difficult dilemma. It was imperative to abolish the odious personal tax which drove the Fijians to seek English annexation, and yet, according to the rules of the English Colonial policy, the colonies must support themselves, i. e., they must find resources for meeting the expenses of the administration. After the abolition of the personal tax the revenue of the islands (from customs' duties) did not exceed 6000 pounds, whereas the expenses of the administration amounted to 70,000 pounds yearly.

In this exigency Sir W. Robinson, having abolished the personal tax, devised a labor tax which the Fijians had to pay, but this new tax did not bring in the 70,000 pounds required for the maintenance of Sir W. Robinson and his lieutenants. A new governor was appointed, a Mr. Gordon, who, in order to collect from the population the money necessary for his own and his officials' support, hit upon the idea of not collecting money until a sufficient amount of it became diffused over the Islands, but, instead, demanded of the inhabitants their products, which he sold.

This tragical episode from the history of the Fijians is the best and clearest demonstration of what money is and what is its importance. Everything has found its expression here: the first fundamental condition of enslavement—threats at the point of the cannon, murder, and land grabbing; and the principal instrument—*money*, which has replaced all the former means. The economical evolution of nations for centuries is here concentrated into a single decade, offering a complete picture of the development of the money-outrage.

The drama begins with the sending by the American government of ships of war to the islands for the purpose of enslaving the inhabitants. The object of the threat is money; this is followed by the levelling of cannon on the inhabitants: on women, on children, on old men,—a phenomenon still repeating itself everywhere, in America, in China, in Central Asia, in Africa. The commencement of the drama, I say, is, "Your money or your life," a process which repeats itself in the history of all the conquests; at first 45,000 dollars, then 90,000 dollars or a massacre. But there is no 90,000 dollars. The Americans have got them. And here begins the second act of the drama: the bloody, frightful massacre concentrated into a short space of time must be deferred and exchanged for sufferings less obvious although more protracted. The little tribe with its representatives seeks a means of substituting for the massacre slavery through money.

The remedy takes effect immediately, like a well-disciplined army, and in five years the work is completed: the people lose not only the right of using their land, but they lose their liberty as well; they become slaves.

The third act now begins. The situation has become intolerable and the unfortunates are informed that they can change masters. As to delivery from the slavery brought on them by money, however, there can be no question. Thus the little tribe calls upon another master and implores him to alleviate their condition. The Englishmen come and, seeing that the possession of this new territory will furnish them the means of maintaining a number of idlers, take possession of the islands with their inhabitants. They do not take them as slaves of course; they do not even take their land. Such old-fashioned methods are not necessary. A tax only is required, in amount sufficient, first, to keep the islanders in slavery, and secondly to support the idlers. The islanders must pay 70,000 pounds. This is the fundamental condition on which the English will deliver the Fijians from American slavery.

It appears, however, that the Fijians cannot, in their present state, pay the 70,000 pounds. The demand is too great. The English modify, for the time being, their demand and take the contribution in kind, with the understanding that, when money is more widely diffused, a return will be made in the original standard. England acts differently from the former company, whose actions may be compared to the first incursion of wild invaders into the midst of a peaceable tribe. England acts as a prudent subjugator: it does not kill outright the hen that lays the golden eggs: on the

contrary, it feeds the hen, knowing that this is a necessary condition of the further laying of eggs. It gives a loose rein in the beginning only to draw it tighter afterwards and to reduce forever the Fijians into that same state of moneyed slavery in which all European and civilised peoples are enthralled, and from which there is, apparently, no deliverance.

As soon as money is collected forcibly, at the point of cannon, there will infallibly be a repetition of what took place in Fiji, and what has happened everywhere, at all times. Men who can impose their will on others will impose on them such a contribution of money as to render them slaves. And, besides, it will happen, as in the case of the English and the Fijians, that the tyrants, in their demand for money, will rather transgress the limit at which the enslaving is accomplished than stop short of it. Nothing but a moral sentiment will prevent the transgressing of that limit. The governments will always transgress it, first, because a government possesses no moral sentiment, and secondly, as we know, because governments through their wars and the necessity of maintaining their following are always in dire need. All governments are in debt and cannot help carrying into effect the maxim of that Russian statesman of the eighteenth century that "the moujik¹ needs constant trimming." All governments are head over heels in debt, and this debt increases in frightful proportion. In the same proportion grow the budgets, or the necessity of protection against other subjugators, and with both grow the rents. The wages of labor, however, do not keep pace with the growth of the rents, owing to these very governmental taxes, the aim of which is to pluck men of their savings and thus to compel them to sell their labor, and this is the main purpose of every tax.

This manner of exploiting labor is possible only when more money is demanded on the whole than the workingmen can afford to give up without depriving themselves of the means of subsistence. A rise in the workingman's wages would preclude the possibility of slavery and, consequently, so long as there is oppression, wages can never rise.

This simple and obvious domination of one set of men over another is called by the economists an "iron law." The factor which produces this domination is called by them "the instrument of exchange." Money—this innocent instrument of exchange—is required by men in their relations. Why, then, in places where no forcible levying of money-taxes has existed, has there never been

¹ Russian peasant.

money in its present sense, as among the Fijians, among the Kirghes, Africans, and the Phoenicians who, like all men paying no taxes, employed the direct barter of goods for goods, or only occasional tokens of value, as sheep, skins, furs, shells? Some single certain money, whatever it may be, becomes currency among men only when it is forcibly demanded of all. Only then is it wanted by everybody to ransom himself from oppression, only then does it become a currency. It is not the article which is the most convenient for exchange that is in demand, but that which is required by the government. If gold is demanded by it, gold will possess value; if pan-cakes are in demand, pan-cakes will have value.

If this is not the case then why issue for the circulation only that instrument of exchange which is the exclusive prerogative of the government? The Fijians, for instance, established their own instrument of exchange; why did not you, the men who possess the power, otherwise means of oppression, leave them alone and not meddle with their medium? Instead of that, you go to work and coin money, forbidding that right to others, or, as with us, you stamp bits of paper with images of czars and with special imprints, and make the counterfeiting of that paper a capital crime. You then distribute that money among your associates and demand the payment of taxes in those coins and bits of paper in such amount that the workingman must give up all his labor to acquire some of those bits of papers and coins, and then you assure us that that money is necessary as means of exchange. All men are free, they are not oppressed by their own kind, they are not kept in a state of slavery, there is simply money in society and an "iron law" by which the rent is increasing and the workingman's wages diminishing to a minimum! The fact that a half (or more) of the Russian moujiks are tied up hopelessly to the landed proprietors and manufacturers through the medium of their taxes, does not signify (what is evident) that the oppression of tax-levying by the government and its assistants, the landowners, keeps the workingman in the slavery of those who levy the taxes. No, it means that there is simply *money*—a means of exchange—and an "iron law!"

Before the abolition of serfdom I could compel John to do any kind of work, and if he refused I could send him before a district judge who had John whipped until he submitted. But if I made John work incommensurably with his strength or gave him no food, I was sure to have trouble with the authorities. But now that men are free, I can still compel John or Peter or Paul to do any work

I please, and if he refuses I will give him no money to pay his taxes with, and he will be whipped until he submits to me; and, furthermore, I can compel the German, the Frenchman, the Chinaman, the Indian, etc., to work for me, by not giving him for his stubbornness money wherewith to buy bread, or rent land, since he has neither the one nor the other. And if I compel him to work without food, in excess of his strength, if I crush him with hard labor, no one will say a word to me; and, besides, if I have read certain politico-economical books, I may remain confident that all men are free and that money does not cause slavery. The moujik knows that a blow with a rouble is worse than a blow with a club. The political economists alone will not see that. To say that money causes no enslaving is the same as to have asserted a few decades ago that serfdom caused no enslaving.

The political economists say that although one man can enslave another by money, money is still a harmless medium of exchange. Why could it not have been said half a century ago that although man may be enslaved by serfdom, serfdom was not an instrument of enslaving but only a harmless method of mutual services? The one side gives its hard labor, the other has in its care the physical and mental well being of the serfs and the management of the work. In fact, this reasoning *was* advanced at the time.

III.

If this fictitious science, political economy, were not preoccupied with what all the law sciences are preoccupied, with namely, with the apology of oppression, it could not help seeing immediately the odd fact that the distribution of wealth and the deprivation of one portion of men of land and of capital and the enslaving of one set of men by another is connected with money, and that it is through the medium of money that some men enjoy the labor of others, that is, enslave them.

I repeat it that a man with money can buy up all the bread and starve to death his neighbor, or he can enslave him for the price of bread. This actually takes place before our very eyes to a vast extent. The phenomenon of the enslavement plainly seems to be connected with money, but science boldly asserts that money has nothing whatever to do with it.

Science says: money is as much a commodity as anything else which represents its cost of production, but with this difference that this kind of commodity is chosen as the most convenient means

of exchange, of saving, of payments, and is a measure of values: one man makes shoes, another produces wheat, a third raises sheep, and in order to effect exchange more easily, they introduce money representing the corresponding share of their labor and through it they exchange a pair of shoes for a piece of sheep and ten pounds of flour.

The apostles of this imaginary science are fond of picturing such a state of affairs; but there never was such a state of things in the world. A condition of society of this kind implies a primitive, pure and uncorrupted human society, such as the old philosophers were fond of fancying. But such a thing never existed. In all human societies where money has existed as money there has always been oppression of the weak and unarmed by the strong and armed; wherever there has been oppression the tokens of value—the money, whatever it may have been, cattle, furs, skins, metals—invariably lost that significance and assumed the character of a ransom. Money has, undoubtedly, those harmless properties which science attributes to it, but it can have such properties only in a society where the oppression of one man by another is impossible; and that would be an ideal society which would not need money as a common measure of values. In all known societies where money exists, it has the meaning of a medium of exchange only by virtue of its being an instrument of oppression. Wherever there is oppression money cannot be a just medium of exchange because it cannot be a measure of value. It cannot be a measure of value because as soon as one man can deprive another of the products of his labor, that measure is instantly disturbed. Assuming that in a stock market there is a traffic going on in cows and horses raised by certain owners but misappropriated by others, it will be evident that the value of the cows and horses in this market will not correspond to the labor of raising those animals, and the value of all the other commodities will be affected correspondingly, and money will not express the value of those commodities. Furthermore, if it is possible to acquire forcibly a cow, a horse, or a house, it is possible by the same force to acquire money and, through it, any commodity desired. Such money, acquired by force and employed in purchasing goods, loses every semblance of a means of exchange. The oppressor who took the money and gives it for the products of labor, does not effect exchange but simply takes with his money whatever he wants.

Even if there had ever existed such an imaginary, impossible society in which, without any governmental imposition, gold and

silver had the nature of a measure of value and of a means of exchange, even in such society money would lose its significance with the first appearance of oppression. Let us say that a subjugator appears who appropriates the cows, the horses, and the houses of the inhabitants; this form of possession being inconvenient to him he takes from the inhabitants everything that has the quality of value and that can be exchanged for all sorts of commodities, namely, money. Money, then, as a measure of value, loses its significance because the measure of value of all the commodities will always depend on the oppressor's pleasure. That commodity which is the most desired by the oppressor will have the greater value, and *vice versa*. And thus, in a society subjected to oppression money acquires the nature of a means of oppression in the oppressor's hands and retains its quality as a means of exchange among the oppressed only in so far and in such proportion as suits the oppressor. Let us imagine this procedure on a small scale. The serfs are supplying the landlord with linens, poultry, sheep, and a certain amount of labor. The landlord substitutes money for these contributions in kind and puts a price on the various articles of his revenue. The man who has neither linen, bread, cattle, nor hands, may contribute a certain sum of money. It is evident that in this community of serfs the value of commodities will depend on the landlord's pleasure. The landlord uses those commodities, of which some are more and others less desired by him, and, accordingly, he fixes their prices higher or lower. It is evident that it is only the landlord's pleasure and his needs which establish the prices in this community of serfs. If he desires bread mostly he will accept at a smaller valuation linens, cattle, labor; and, consequently, those who have no wheat will sell to those who have, their linen, labor, etc., for wheat to satisfy the landlord with. If the landlord wishes to reduce his dues to the basis of money, then, again, the price of commodities will not depend on the cost of labor but, first, on the amount of money demanded by him, secondly, on those particular commodities produced by the peasants which are the most desired by the landlord, and for which he will pay more.

This levying of money from the peasants by the landlord would influence the price of articles among the peasants only in case the peasants lived apart from all other men and had no intercourse save among themselves and with the landlord, or secondly, in case the landlord employed that money only outside of his village. Only under these two conditions would the price of commodities,

although changed nominally, remain comparatively normal and money have the sense of a measure of value and exchange. But if the peasants had economical relations with the surrounding inhabitants, then the prices of their products as compared with those of their neighbors would depend on the greater or less extortion of money by the landlord. If less money were levied from their neighbors than from themselves, then their commodities would sell cheaper than those of their neighbors. If the landlord put the contributed money again into circulation among the peasants by buying their products, then, evidently, the relation of the prices of the various articles in that community would be constantly changing, according as the landlord bought this or that article. Supposing that one landlord levies a high tax while his neighbor a low one, then, manifestly, articles will be cheaper in the first community than in the second, and the prices in either community will depend on the raising and the lowering of the taxes.

Such is the influence of oppression in prices. The second influence, which flows from the first, will consist in the relative price of all the articles. Suppose that one landlord is fond of horses and pays dearly for them; another one likes linen and also pays well for it. It is obvious that in the domains of the two landlords horses and linen will have a high price, which will be entirely disproportionate to the price of cows and wheat. To-morrow the lover of linen dies and his heir prefers poultry, the price of linen will fall and that of poultry will rise.

Wherever in society there is oppression of one man by another the nature of money as a measure of value is subordinated to the oppressor's will, and its importance as a medium of exchange for the products of labor is commuted into a convenient means of exploiting men's labor. The oppressor wants money not for exchange nor for the establishment of measures of value (he establishes that himself), but for the convenience of oppression, as money can be accumulated and a greater number can be held in bondage thereby. It is inconvenient to take from the people all their stock, so as to have a sufficient supply at all times, for the simple reason that this necessitates their feeding; the same cause operates with grain: it may spoil; the same with labor: sometimes a thousand workingmen may be required, and, again, none at all. But money demanded of those who have it not saves one from all this inconvenience and yet supplies all that is wanted.

Furthermore, money is wanted by the oppressor to enable him to extend his exploitation of labor to all men needing money, and

not to certain persons only. In the absence of money a landlord could exploit only the labor of his own serfs; as soon as two adjoining landlords agreed to levy money from their serfs who had none, they both commenced to exploit indiscriminately all the labor on either estate.

Therefore the oppressor finds it more convenient to assert his demands on another man's labor in the form of money. As to the oppressed who is deprived of his labor, he requires no money, neither for exchange (he effects that without money, as all races did); nor for the establishment of measures of value, because that is done without consulting him; nor for the purposes of saving, since the man who is deprived of his labor has nothing to save; nor to effect payments, because the oppressed pays more than he receives, and whatever he does receive is in goods, whether it be in the store of his employer, or outside, in articles of actual necessity. This money is demanded and he is told that unless he gives it up he will have no land, nor bread, his horse and his cow will be taken from him, and he will be cast into jail. His deliverance is in selling the products of his labor, his work and the work of his children. And he sells his labor and its products at prices established, not by a regular exchange, but by the power which demands the money.

To speak of money as a medium of exchange and a measure of values is, to say the least, strange, seeing the influences of taxes and levies on values, influences working everywhere and at all times, in the narrow circle of landlords and in the wide circle of nations, influences which are as obvious as the springs which manipulate the marionette of a Punch and Judy Show.

IV.

Every enslavement of one man by another is based on the fact that one man can take another man's life, and thus, without quitting his threatening position, he imposes his will upon him. If a man gives up all his labor to others, if he starves, if he suffers his little children to do heavy work, if he devotes all his life to a hateful and unnecessary occupation, a thing that occurs every day in this world of ours (which we call enlightened because we live in it), we may say with certainty that all this happens because the penalty of a man's non-submission is the forfeiture of his life.

The present method of enslaving men was invented five thousand years ago by Joseph the Beautiful, according to the Bible. This method is the same as is used in taming wild animals in our menageries. It is hunger.

This is how the Bible describes it:¹

"And he gathered up all the food of the seven years, which were in the land of Egypt, and laid up the food in the cities: the food of the field, which was round about the city, laid he up in the same.

"And Joseph gathered corn as the sand of the sea, very much, until he left numbering; for it was without number.

"And the seven years of plenteousness, that was in the land of Egypt, were ended.

"And the seven years of dearth began to come, according as Joseph had said: and the dearth was in all lands; but in all the land of Egypt there was bread.

"And when all the land of Egypt was famished, the people cried to Pharaoh for bread: and Pharaoh said unto all the Egyptians, go unto Joseph; what he saith to you, do.

"And the famine was over all the face of the earth: and Joseph opened all the store-houses, and sold unto the Egyptians; and the famine waxed sore in the land of Egypt.

"And all countries came into Egypt to Joseph for to buy corn; because that the famine was so sore in all lands."

Joseph, eschewing the old-time method of enslaving men with the sword, gathered corn in abundant years in the expectation of bad years which usually follow after the times of plenty as all men know without any of Pharaoh's dreams, and thus, by hunger, he enslaved all men, far and near, and much more effectively than with the sword. When people commenced to feel the effects of hunger, he arranged things so as to keep the people in his power forever—by hunger. In Chap. xlvii it is described thus:

"And there was no bread in all the land; for the famine was very sore, so that the land of Egypt and all the land of Canaan fainted by reason of the famine.

"And Joseph gathered up all the money that was found in the land of Egypt, and in the land of Canaan, for the corn which they bought: and Joseph brought the money into Pharaoh's house.

"And when money failed in the land of Egypt, and in the land of Canaan, all the Egyptians came unto Joseph, and said, Give us bread: for why should we die in thy presence? for the money faileth.

"And Joseph said, Give your cattle; and I will give you for your cattle, if money fail.

"And they brought their cattle unto Joseph: and Joseph gave them bread in exchange for horses, and for the flocks, and for the cattle of the herds, and for the asses; and fed them with bread for all their cattle for that year.

"When that year was ended, they came unto him the second year and said unto him, We will not hide it from my lord, how that our money is spent; my lord also hath our herds of cattle; there is not aught left in the sight of my lord, but our bodies, and our lands:

"Wherefore shall we die before thine eyes, both we and our lord? buy us and our land for bread, and we and our land will be servants unto Pharaoh: and give us seed, that we may live, and not die, that the land be not desolate.

¹ Genesis, xli.

"And Joseph bought all the land of Egypt for Pharaoh; for the Egyptians sold every man his field, because the famine prevailed over them: so the land became Pharaoh's.

"And as for the people, he removed them to cities from one end of the borders of Egypt even to the other end thereof.

"Only the land of the priests bought he not; for the priests had a portion assigned them of Pharaoh, and did eat their portion which Pharaoh gave them: wherefore they sold not their lands.

"Then Joseph said unto the people, Behold, I have bought you this day and your land for Pharaoh: lo, here is seed for you, and ye shall own the land.

"And it shall come to pass in the increase that ye shall give the fifth part unto Pharaoh, and four parts shall be your own, for seed of the field, and for your food, and for them of your households, and for food for your little ones.

"And they said, Thou hast saved our lives: let us find grace in the sight of my lord, and we will be Pharaoh's servants.

"And Joseph made it a law over the land of Egypt unto this day, that Pharaoh should have the fifth part; except the land of the priests only, which became not Pharaoh's."

Formerly, in order to avail himself of the people's labor, Pharaoh had to compel them to work by force of arms; now, when all the supplies and all the land were Pharaoh's, he had only to guard by force those supplies and the land, and he could compel the people to work for him by hunger.

In a scarce year everybody, at Pharaoh's will, may be starved, as can in a year of plenty all those who through casualties are lacking wheat.

Thus a second method of enslavement is created, one by which the strong compels the weak to work, not through the threat of murder, but by capturing his supplies and guarding them sword in hand.

Said Joseph to the hungry: I can starve you to death, for I have all the supplies; but I grant you your life on condition that, for the bread I give you, you shall do my bidding.

In the first method of enslavement, the strong must keep a large number of warriors constantly watching the inhabitants and exacting their submission by threats of death. In this case the oppressor must share with the warriors.

The second method, besides the warriors, requires other assistants—small Josephs and big Josephs—managers and distributors of bread. The oppressor must share with them and give the Josephs costly garments, gold rings, servants, as also bread and silver to the brothers and relatives of the Josephs. Furthermore, the very nature of this form of oppression makes accomplices not only of all the managers and their relatives but also of all those

who own the stores of wheat. As in the first method, which was based on the force of arms, every armed man was an accomplice in oppression, so in the second method, which is founded on hunger, every one who has supplies of wheat participates in the oppression and dominates.

The advantage for the oppressor in the second methods consists in this that (1) he is not compelled to resort to force to compel workingmen to do his bidding, the workingmen come and deliver themselves into his hands freely; (2) fewer men escape his oppression. The disadvantage is that he has to share his plunder with a larger number of men. The advantages to the oppressed are that they are no longer subjected to the harsher forms of brutality, are given a slight degree of freedom, and may hope, under favorable circumstances, to pass in their turn into the ranks of the oppressors; the disadvantage is, that they can never again avoid a certain measure of oppression.

But even this mode of enslaving is not entirely satisfactory to the oppressor in his endeavors to despoil the greatest possible number of men of the products of their labor and to enslave the greatest possible number, and thus a new, a third, method is elaborated.

This third method consists in the recourse to ransoms or taxes. This new method, like the second, is also based on hunger, with the difference that, in addition to the pangs of hunger, resort is had to other primal necessities. The strong man assesses his serfs in tokens of money which he alone has to such an amount that they must give him not only supplies of wheat in a greater amount even than that demanded by Joseph, but they must also give to him other articles of primal necessity, as: meat, hides, wool, clothing, fuel, buildings; thus the oppressor retains his serfs not only by fear, but also by hunger, cold, want, and other hardships.

In this wise is instituted the third form of slavery, the moneyed slavery, in which the strong says to the weak: "I can do with every one of you whatever I please, I can kill you outright with a gun, I can kill you by taking from you the land which gives you support, I can buy up all the bread with the money which you owe me and I can sell it to strangers and thus exterminate you by hunger; I can strip you of all you have: of your stock, your dwellings, your clothing. But this is both disagreeable and inconvenient to me; therefore, I will allow you to dispose of your labor and your products at your own will, but you must give me as many tokens of money as I deem it fit to assess you for, either *per capita*, accord-

ing to your holdings, your food and drink, your clothes, and your buildings. Bring me these tokens, and you may then fight it out among yourselves as best you can; but you must know that I am not going to protect or succour your widows, your orphans, the sickly, the old, or the victims of fire; I shall only preserve and perpetuate the regularity of circulation of the tokens of money you give me.

"Only that man will be right in my eyes and him only shall I defend him who contributes with regularity the requisite number of tokens of money. How these have been acquired is none of my business."

The persons in power issue these tokens only as vouchers to show that their demands have been complied with.

The second method of enslaving consisted in this, that Pharaoh, by exacting a fifth part of all the crops and in establishing reserves of grain, put himself in possession of an additional means of subjugating and dominating workingmen in times of famine, his first means having been that of the sword. But Pharaoh's third method consisted in exacting from the workingmen even more money than their original contributions in grain were worth, and thus he and his accomplices acquired a new means of dominating the workingmen not only during a famine but at all times. Under the second method men had still some small reserves of grain left which helped them to tide over the poorer crops without becoming hopeless slaves; under the third method, with its increased demands, all the reserves of grain as well as of other articles of barest necessity are absorbed, and, with the slightest misfortune, the workingman, having no supplies of grain or anything else to trade off for grain, becomes a slave of those who have the money exacted of him.

Under the first method the oppressor had to share his spoils with his warriors only; under the second, besides maintaining the necessary guardians of the land and its products, he has to engage collectors and supervisors of his supplies; while the third method, under which he does not hold the land, requires still more—soldiers for the security of the lands and of wealth, and also landlords, tax-collectors, tax-assessors, inspectors, Custom House employees, and the makers and the comptrollers of the money.

The organisation of the third method is much more complex than the second. Under the second method it is possible to farm out the collection of the grain, as is done at the present time in Turkey, for instance. The assessing of slaves by taxes necessitates a complex administration whose duty it is to see that men and those

of their dealings which are subjected to taxation do not evade it. Therefore, the third method compels the oppressor to share his spoils with a much greater number of men than the second method; besides, by the very nature of the thing, there appear as participants in the third method all people who have money, whether at home or abroad. The preferences of this method over the others are as follows:

First, a greater amount of labor may be taken from the people in this manner and more conveniently than by the old method, for the money tax is like a screw: it can be screwed down very conveniently to the last limit and just short of killing the golden hen. Therefore it is not necessary to wait for the year of famine, as with Joseph. The year of famine has come to stay forever.

Its second convenience is in that the oppression now covers all those landless men who formerly evaded it; now, besides giving a part of their labor for bread, they must give another part to the oppressor as a tax. Under this, the third method, the oppressed enjoys greater personal liberty: he may live where he pleases, he may do what he pleases; he may or he may not sow wheat, he is not bound to account for his work, and if he has money, he may consider himself a perfectly free man. On the other hand, the greater complexity of the third method renders the situation of the oppressed much harder and they are deprived of the greater part of their products, as the number of men availing themselves of their labor grows still larger and their maintenance falls on a smaller number of the workingmen.

All three methods may be compared to screws, pressing the board which presses down on the workingman. The main, the central screw without which the others would be useless is that which is screwed down first and is never afterwards relaxed: it is the screw of personal slavery, subjugation by the sword. The second screw, tightened after the first, consists in enslavement by depriving men of their land and supplies of food, and it is kept in place by a threat of murder. The third screw is slavery through demands of money which people do not possess, and this also is locked up by threats of murder. All these screws are tightened and are never relaxed except through the further tightening of one of them. For the complete enslavement of the workingmen all three screws are necessary, and we actually see them resorted to in our society; they are always tightened.

Personal slavery, slavery at the point of the sword, has never been abolished and never will be so long as the subjugation of one

set of men by others lasts, for on it ultimately stands all subjugation. We all are persuaded very naïvely that personal slavery is abolished in our civilised world, that its last remnants have been wiped out both in Russia and in America, and that only the barbarians at present have it. But we forget one little circumstance, the existence of a score of millions of soldiers, who are maintained by every State and whose disbanding would involve a downfall of the economical structure of every State. Are not these millions of soldiers the personal slaves of the men who command them? Are not these men compelled to do the will of their masters under a threat of death, a threat carried out but too often? The difference is in that their submission is not called slavery, but discipline, and that formerly they were slaves for their life-time, whereas now they are such only for the short period of their service. Personal slavery is not only not abolished in our civilised societies, but it is even intensified through universal military liability, and it continues the same as ever, with slight modifications.

They tell us that these bodies of slaves are necessary for the defense and glory of the country, but this is more than doubtful, as in unsuccessful wars they are the cause of the subjugation and shame of their country, whereas their utility for keeping their own people in slavery is evident. Should the Irish peasants or the Russian moujiks possess themselves of the lands of their landlords, the soldiers will come and will reinstate the landlords. Should you start a distillery or a brewery and refuse to pay the excise, again the soldiers will come and will shut your distillery down. Should you refuse to pay taxes, the same thing will happen.

The second screw is the enslavement by depriving men of land and, thus, of supplies of food. Sometimes the entire land belongs to the estate, as in Turkey, when one per cent. of the crop is taken for the benefit of the State. Sometimes the entire land belongs to a small number of private persons and labor is taxed for their benefit, as in England; sometimes the greater or the smaller part of it belongs to small and large landowners, as in Russia, in Germany, in France. This screw of enslavement is loosened or tightened according to the other screws. Thus, in Russia, when personal enslavement embraced the majority of the workingmen, enslavement by land was superfluous, and the screw of personal slavery was loosened only when the screws of the land and the tax enslavement had been tightened. Having assigned all the workingmen to various communities, having prohibited migration and displacement of every kind, having appropriated the land and distributed

it among its following, the government then "liberated" the working people.

The third method of enslavement—through taxes—is also of long standing, and in our time, with the diffusion of uniform tokens of money throughout many states and with the increase of the governmental power, it has acquired a mighty power. We, in Russia, have passed within our own memory through two forms of slavery: at the time of the liberation of the slaves the landowners, although retaining their lands, feared lest their power over their serfs should vanish; but experience showed that, in releasing their hold on the chains of personal slavery, they had only to grasp the other chain,—that of land slavery. The moujik had no bread, while the landowner had both land and supplies of bread, and, therefore, the moujik remained the same slave. The subsequent transition was that in which the government tightened up the screw by taxes, when the majority of the workingmen had to sell themselves to the landowners and the manufacturers. This new form of slavery presses the people still harder to the wall and nine tenths of the Russian workingmen are working for landowners and manufacturers only because the demand of taxes compels them.

These three methods of enslavement have always existed, but men are inclined not to notice them as soon as new justifications are found for them.

When, in the ancient world, the entire economical structure stood on the basis of personal slavery, the greatest minds failed to see it. Xenophon, and Plato, and Aristotle, and the Romans thought that things could not be otherwise, and that slavery was a natural consequence of wars, without which the human race was inconceivable. Just so in the Middle Ages men failed to see the significance of the ownership of land and the resulting slavery, on which stood the economical structure of the Middle Ages. And thus at present men fail to see that the enslavement of the majority of men is brought about by the governmental money-taxes collected through the medium of administration and the army, the same administration and army which are maintained out of those taxes.

CRITICISM OF TOLSTOI'S "MONEY."

BY J. LAURENCE LAUGHLIN.

THE splendid services of Tolstoi to literature and to humanity, his noble devotion to the weak and helpless, his unselfish and magnanimous nature, have won him a place in our esteem and affection which nothing can shake. For this very reason, therefore, it will be possible to take up critically a particular point in his teaching without being in the least misunderstood; and our readers will see that it is a criticism of a doctrine and not of the man. While one sympathises wholly with his earnest attacks upon oppression, it may still be possible for one to take exception to his arraignment of entirely innocent instruments. It must be left to the reader to decide whether he has been in error regarding his views of money, after a brief examination of their soundness.

The modern student of the history of money is well aware that elemental necessities lay behind the introduction of money into early, as well as later, society. It was evolved from within and was not imposed from without, or from above. Money arose in answer to a controlling desire of men to abridge effort and reduce inconvenience and delay. Its function to society is in essence no different from the sewing-machine, or a telegraph system. First of all, a common denominator (sometimes spoken of as a standard, or measure) was needed, in terms of which the values of articles in general might be expressed, so that their relative values might be seen at a glance. Knowing that a bushel of potatoes exchanged for three roubles, and a scythe for thirty, we know at once that a scythe exchanges for ten bushels of potatoes. Secondly, the inconvenience and loss of time in barter was great. As soon as any sensible division of labor arose (that is, as soon as the time element of industry came to play an important part) the need of a satisfactory medium of exchange between articles already produced be-

came imperative. The man who had oats, but wished a basket, might travel far before finding one who had baskets and who also needed oats. The reason for selecting an instrument of exchange was the same—at the bottom—as that for devising a canoe, or a fishhook: it was that the results from human effort might be enlarged. The article first chosen as a common denominator was always one which was of great utility to the members of society, according to the climate and geography, such as furs, shells, tobacco, tea, or precious metals. The choice was never imposed by a government; the government, on the contrary, always of necessity adopted that which had at first been the voluntary choice of the community. Later, the article chosen as a common denominator was not always, or necessarily, used as the medium of exchange. The goods, valued in the denominator, came to be transferred by bills of exchange, or devices for exchanging the ownership of money, without the risk attendant on carrying it about.

Moreover, just in proportion as men grew in civilisation, it was natural that the part of their wealth invested in the machinery of exchange should be reduced to the minimum consistent with perfect efficiency; for in that way more wealth would be freed for the general needs of society (other than as an instrument of exchange). A locomotive of good steel and iron would be no better carrying agent if it were covered with precious stones; the less expensive the better, if equally efficient. The progress of a country in industry is never more clearly marked than by the efficiency of its monetary system. Money is a necessity of trade just as much as a horse, or a wagon, or a railway is a necessity of modern transportation. To deny it is to overlook the means by which man is to-day able to get the present returns from nature. Money is as much a part of human progress as the electricity which frees the horse from the slavery of a street-car system. Keeping these simple, and generally admitted, principles of money in mind, one may then be permitted to follow Tolstoi in order through his argument.

I.

Tolstoi thinks that the domination of some men over others is due to money, or, as he says, "men who have money can twist ropes of those who have it not." This point of view arises from a confusion between money and wealth. Money, however, is only one form of wealth; wealth also appears in any other form which satisfies human wants. Those who have bread can put hungry men under their control just as easily as if they had wealth in the

general form of coined money. The real question is as to the possession of power in any form ; wealth is power, and money is only one kind of wealth. Those who have power, political or industrial, "can twist ropes of those who have it not." Domination comes by use of power in the shape of any wealth, whether it be money or not. Money has to do with the exchange of goods after they have already been produced. Whether wages are low or high does not depend on a detail of the exchange of goods.

Our distinguished author next proceeds to a general denial of any influence on low wages (and suffering of the poor) of the principles of economic distribution ; that is, he sees no value in the principles regulating wages for labor, interest for capital, and rent for land, which appear in the writings of the day. Instead, oppression and slavery and poverty are due to money, in his opinion. He even objects to the classification of the factors of production into capital, labor, and natural agents.

In the first place, Tolstoi is in error when he says economic science ascribes the depressed condition of workingmen to the above described separation of the factors of production. Far from it. The factors of production are analysed ; but in economics certain principles are evolved which state the operation of the forces governing the shares which go to the several factors. Even granting that there were more than the stereotyped factors, the laws regulating the distributive shares might not be altered.

To confuse the principles regulating and explaining the amount of wages, interest, and rent, with the subject-matter to which these principles apply would be like failing to distinguish between the laws of motion and the things which come under the influence of these laws. And yet this is what Tolstoi seems to do. The separation of the factors of production is only a matter of convenient classification ; and so we classified them as labor, capital, and land (or natural agents). And when Tolstoi says economics omits such conditions as sunshine, air, skill, etc., he is in error. The sun, air, etc., are a part of the natural agents not due to man's exertion ; without them land would not produce. Skill is the quality of human effort which directly affects the reward of labor through efficiency. Also, education is considered just as soon as it enters the economic sphere by having an effect on production. All these statements are commonplaces of our science which it would be superfluous to introduce here if our great Russian had not doubted them. Indeed he really admits the customary classification of the necessary factors of production when he says (later on): "The

idea of a workingman involves the land he is living on and the implements he is working with." This is nothing more than a classification of the essential factors of production into labor, land, and capital.

In his illustration taken from the Russian colonists he shows this error clearly. No matter whether the land is held in common or not, it is land subject to the conditions imposed by nature. That is, land will not produce proportionally increasing returns with increased applications of labor and capital (which is the law of diminishing returns). Therefore, under certain conditions, rent appears, no matter who gets it. Next, he says no interest on capital is to be found. Who made the scythe, or spade? And if the maker of the spade (by which cultivation is aided) is dispossessed by others without recompense is that not robbery? If I were ploughing with a horse (as my capital) may any shiftless person, who has no horse, come and take mine to plough his own land without doing me an injustice? If such are the doings of the Russian colonists, they are not the ways of a free community; and one would regard them as a case of caged sparrows, a special incident, not to be regarded as a basis for general conclusions. And if one had painfully saved up subsistence to use while making a spade, and then had loaned the finished spade to be used by another (who had not equal foresight), what does Tolstoi mean when he says that the spade cannot belong to any one but to him who works with the spade? If the second man claims the ownership of the spade, he is robbing the one who had the foresight and skill to make it.

It is not here possible to enter into a discussion of the right to private property in land. Whether it be just or unjust, wise or unwise, for present purposes it is a fact which has existed (at least among Teutonic races) since the sixth century A. D., and which has to be reckoned with. Tolstoi is really arguing against private property in land; it is really not relevant to the question in hand, and, therefore, I shall not go into it. But in so far as he argues that, if an agricultural laborer has no capital he has been ousted of his capital, he is wrong. It does not follow that a man who is without capital ever had any to be ousted from. Nor is it true that laborers are necessarily cut off from capital. In the United States every one can specify cases of men beginning as day laborers who have risen by their own efforts into the capitalist class. To argue as if all society were like that of Russia is to reason again upon caged sparrows with trimmed wings.

Finally, no economists known to me call the control of the

liberties of others the "natural properties of production"; nor do they pretend that "the workingman's natural condition is the unnatural condition we see him in." Quite the contrary. Economists are seeking as eagerly as Tolstoi to understand the principles of economics in order to obtain the means of ameliorating the lot of the poor.

The discussion of slavery is irrelevant. It is the law of Russia which makes slaves, not the universal conditions and requisites of production (land, labor, and capital). The *non sequitur* here is patent to every one. If the requisites of production, given by economists, produce slavery, then why are there not slaves in Great Britain and the United States as well as in Russia? The tyrannical political system of Russia should not be introduced to conceal the operation of fundamental forces.

Tolstoi regards the lack of possession of land and capital by some men as due to the devilish nature of money. Why are those who have land and capital able to enslave others? By use of money, he says. This seems to a modern man somewhat preposterous. How is any man enslaved? Naturally by those who have power and who use it wrongly. But power may be exercised in a thousand different ways, and money is but one way through which it appears. Political tyranny could obtain its end by physical force even if money had no existence.

Under the next head, Tolstoi illustrates the process by which money is used to enslave a people by the history of the Fijians. The fallacy residing in this exposition is the one of mistaking the power for the agent of that power. He assigns to one agent what should be ascribed to an initial force behind the agent. The power behind the means is the important thing; the actual means chosen is generally quite unimportant. The power to use physical force to carry out any wrong purpose was the cause of the enslavement. The slavery could have been introduced without the particular use of money; since money was only one of various possible means. The ransom could, and would, have been exacted in kind (i. e., by goods) just as well as in money, and the outcome would have been the same. Given brutal injustice and inhumanity in the rulers, wrong can be inflicted in numberless ways. To assign the originating evil to the agent money is like urging that words by which vicious thoughts are conveyed are the real culprits, instead of the bad nature behind the words.

Moreover, in the state of barter, where no money existed, history tells us that slavery existed. Now, if our author would have

us believe that money necessarily brings slavery, then does it follow that where money does not exist there would be no slavery? The inference is obvious enough: slavery may exist whether money is used or not. Tolstoi's argument proves quite too much when he says: "In all human societies where money has existed as money there has always been oppression of the weak and unarmed, by the strong and armed." In fact, the same conditions may exist where money does not exist. If the earlier history of the Fiji islands be examined, it will be found that before this period mentioned by Tolstoi cannibalism prevailed. That is, even a worse status of the poor natives obtained before than after the attempt to introduce money. To assign the evils of oppression to money is to overlook the originating causes and to convict only the simple agent. To have forbidden the use of money would not have prevented the results of oppression. The demand of the Americans for \$45,000 was in reality a demand for the quantity of Fijian products which could be sold for that sum; it was a demand for what their labor, land, and capital could produce. That this was the essence of the whole operation is shown by the final action of Governor Gordon, when, finding money scarce, he exacted goods in kind. When King Cacabo levied a heavy tax in money, in reality it was a heavy tax in goods; the heavier, because the islands must produce and export in order to bring in that kind of money which had not hitherto been needed. The question with the poor natives was simply: Can we produce such amounts of goods for taxes, and yet keep alive? The wrong of the whole matter resides in a situation requiring heavy taxation, not in the special form in which the tax was to be paid (although that might slightly aggravate the evil).

The pivotal difficulty with Tolstoi is in not seeing that money is but a means to an end, a labor-saving device like any piece of industrial machinery. It has come in answer to a demand from below, not by an enforced imposition from above; it is an evolution arising out of the need of the people to save time and effort. To seriously propose the abolition of money as a means of avoiding slavery and oppression would be like proposing to abolish railways as a means of restoring public virtue. Money is as much an instrument of social and industrial progress as the railway, or the harvester.

This error is carried over into the subject of the principles regulating laborer's wages. Labor is exploited through money, says Tolstoi. "A rise in the workingman's wages would preclude the possibility of slavery, and, consequently, so long as there is op-

pression wages can never rise." The insufficient logic here can be shown by an illustration: If wages rise, slavery is precluded; if slavery exists, wages can never rise. Likewise, if the thermometer rises, there can be no freezing; if freezing weather exists, the thermometer can never rise. That is, remove the cold, and the thermometer will rise; remove the power which admits slavery, and wages may rise. The causes producing high and low wages are originating forces; the means of exchanging goods by money stand in quite a different class, namely a class of agents through which primary elements act. Money cannot be changed from a mere agent into a cause by any action of the government. This is the old fallacy of supposing that a government can regulate the value of anything. Unless it controls all the supply and all the demand in the entire world it cannot do it. A government cannot arbitrarily create a denominator of value, or fix its value; it never has done so yet. The whole history of money is squarely against the following statement of Tolstoi:

"It is not the article which is the most convenient for exchange that is in demand, but that which is required by the government. If gold is demanded by it, gold will possess value; if pan-cakes are in demand, pan-cakes will have value."

In reality, that article which first had general regard and which was most desired for its own sake, was chosen as money. For instance, the earliest money was cattle. In conclusion, it is not true or logical to ascribe to money what may be done without the use of money. Tolstoi says: "The moujik knows that a blow with a rouble is worse than a blow with a club." Injustice can work through other means than money. This is as if one should say that, because a man had been hit with an ebony club, he could not be hit with equal violence by a club made of any other wood.

III.

Continuing in the same vein, Tolstoi holds that "that would be an ideal society which would not need money as a common measure of values." Here again he attributes to money all that he assigned to tyranny. The inadequacy of abolishing money to prevent tyranny is as if one should charge upon language in general all the evil things that words can convey; therefore, abolish language, and we would then have an ideally innocent society. As if by abolishing all means of intelligent communication, evil would thereby be effaced!

To our author, it appears also that values and prices can be wholly fixed by the oppressor. He can no more do this than by

his edict he can establish goodness or health. It is not desirable here to go into a discussion of the forces regulating value. Suffice it to say that the subjective desire is not all that is necessary to determine values. But that is in essence what Tolstoi claims. If the expense of producing goods were low, the oppressor could not keep a high value upon these goods unless he controlled by an absolute monopoly all the labor, capital, and natural agents of the world. If a despot in any one place were to attempt it the prevention of smuggling would take up so much of his time and thought that he would have no chance to eat or sleep.

Tolstoi's misconception between what causes value, and what measures it when it exists is apparent in the following statement:

"To speak of money as a medium of exchange and a measure of values is, to say the least, strange, seeing the influence of taxes and levies on values, influences working everywhere and at all times, in the narrow circle of landlords and in the wide circle of nations, influences which are as obvious as the springs which manipulate the marionette of a Punch and Judy show."

The expenses of acquisition of a commodity (into which taxes, etc., enter) affect its exchange relations with other goods, as every economic student knows. Grant that. Then one article, *A*, heavily taxed, would exchange for more of another article, *B*, which was lightly taxed. All this has to do with the causes of exchange value. But when their exchange ratios are thus affected, how can we express them in terms of a common denominator? By selecting one article, called money. By referring the commodity to money we get a measure of its purchasing power, or value, over goods in general. Taxes and the like may have an influence in determining value; but that is a very different thing from measuring that value in money after it has been determined. The confusion in the above quotation is like a failure to distinguish between heat and a thermometer. A fire may cause heat; a thermometer measures it after it has been caused. We should no more confuse the thermometer (or measure of heat) with the causes (like fire) which produce heat, than we should confuse the influences like taxes and the like (which affect value) with the common register (money) in which the values are expressed for convenience.

V.

The argument of our distinguished author in the last division is only in amplification of that which has been given before, and does not require further notice.

So much of Tolstoi's great and helpful spirit is shown even in his exposition of money that, in spite of what must be eliminated as erroneous economics, one is always touched by his constant desire to expose tyranny and help the unfortunate. It is to be hoped that, even to those of us who may differ from him in his treatment of money, a similar (if less efficient) purpose will be attributed to spread the truth which will aid in the improvement of the lowliest members of society.

THE SEAL OF CHRIST.

BY THE EDITOR.

THE oldest symbol of Christianity is not the cross but the seal of Christ, which is mentioned even as early as in the oldest canonical writings of the New Testament, viz., the epistles of St. Paul. St. Paul speaks of the seal of Christ repeatedly and it appears that a symbolic sealing was a ceremony of definite significance, applied like baptism, perhaps simultaneously with it, to those who were anxious to partake of salvation in Christ. Paul says in his epistle to the Ephesians:

"That we should be to the praise of his glory, who first trusted in Christ. In whom ye also trusted, after that ye heard the word of truth, the gospel of your salvation: in whom also after that ye believed, ye were sealed with that holy Spirit of promise, which is the earnest of our inheritance until the redemption of the purchased possession, unto the praise of his glory."

This must be more than a mere figure of speech, for Paul refers to the same symbolism in passages in which he might have spoken of baptism. He says in the same epistle:

"Grieve not the holy Spirit of God, whereby ye are sealed unto the day of redemption."

The same idea is pronounced in the second epistle to the Corinthians, where we read:

"Now he which establisheth us with you in Christ, and hath annointed us, is God; who hath also sealed us, and given the earnest of the Spirit in our hearts."

The term passed gradually out of use, but occurs in the *Agrapha*, some sayings of Christ not quoted in the canonical gospels, and the fact that this antiquated expression is used in the passage may be taken as an evidence of its belonging to an early age. Clement of Rome quotes a saying of Christ which speaks of the seal in the same sense as does Paul:

"The Lord says: 'Keep the flesh holy and the seal undefiled, that ye may receive eternal life.'"¹

The Revelation of St. John mentions the seal of the living God, which as we know from a comparison of the passages in St. Paul's Epistles, is the same mark as the seal of Christ. In the seventh chapter the seer beholds an angel, "having the seal of the living God," and

"He cried with a loud voice to the four angels, to whom it was given to hurt the earth and the sea, saying, Hurt not the earth, neither the sea, nor the trees till we have sealed the servants of our God in their foreheads."

Interpreters are at a loss what to think of the seal of the living God, and if it is not the shape of two intersecting lines, which among the gentiles was the seal of the God of Life, we have no other explanation than the tetragram, that is the four letters, יהוה i. e., Yahveh, the name of God. But it seems very improbable that the author of the passage should in that case not have preferred to speak of the name of God, for seals were symbolical marks or perhaps initials, but not fully written words or names. Further, since the seal of God is sometimes called the seal of Christ, the seal of God cannot have been the name Yahveh which was exclusively used for God the Father and the God of Israel.

The situation in the vision of St. John is conceived after the same manner as the vision of Ezekiel (chap. ix.), which we have discussed in a prior article.² There the prophet beholds the scribe among the angels setting a mark (viz., a tav +),³ i. e., two intersecting lines upon the foreheads of the faithful, which in the general slaughter that follows is intended to serve them as a sign of protection.

We must assume that the seal was not a real impression made with an intaglio or a sealing matrix but consisted in a mere mark of the finger; for Tertullian, when speaking of the similarities of Mithras worship and Christianity, expressly uses the terms "Mithras there sets his mark on the foreheads of his soldiers," and the context implies that the same ceremony was performed in Christian ritualism. That the mark in either case was the sign of two intersecting lines is not certain but may be assumed to be probable, since the word mark, unless specified what kind of a mark is meant, signifies a tav, or as we now would say, a cross.

¹ See *The Open Court* Vol. XI, page 351, in Dr. Peck's article, "The Agrapha."

² See *The Open Court*, for 1899, Vol. XIII., No. 3, p. 157. The passage is not properly translated in our Bible.

³ The Hebrew letter ת is written + in ancient inscriptions on coins and on monuments.

The ceremony of sealing was not limited to early Christianity but was customary among several religions, such as Mithraism and Abraxas worship. We learn from Egyptian as well as Chaldean and other monuments what an important part the seal played in the economy of public as well as private affairs of remote antiquity in Asia and Africa. The seal was the symbol of the personality of its owner and represented the man as his signature now does. Thus every man of importance or of considerable property possessed his seal which in Assyria was a little cylinder that was rolled over the wax or the clay, and in Egypt an engraved stone set in a ring. In the Song of Songs we read (viii. 6):

"Set me as a seal upon thine heart, as a seal upon thine arm."

One of the most instructive allusions to the seal of Christ is made in the Acts of Thekla, one of the oldest books of Christian literature¹ and the context of the passage makes it evident that the seal of Christ was administered at baptism.

It is difficult to prove definitely what the seal of Christ was, but there are sufficient indications to render it probable that it is identical with the sign of the cross, for later church-fathers, who may not have known the original significance of the symbol but were at any rate familiar with the traditional ritual, identify both terms and speak of them in one breath as if they were the same. Cyril, for instance, in his catechetical lectures (*Lib. fath.*, p. 161) says: "Be the cross our seal, made with boldness with our fingers on our brow and in everything, over the bread we eat and the cups we drink, etc."

It appears that a certain form of signing oneself prevailed among the early Christians under the name "Seal of Christ," which was later on interpreted to mean, "signing with the cross of Christ;" and all the practices in church service in which formerly the seal of Christ was used were thereafter called making the cross. The old mode of speech was now and then preserved only and serves us now as a reminiscence of the older interpretation which used this method of marking objects with two intersecting lines in the sense of the pre-Christian tradition, as a method of consecrating something to the service of God. The custom of using the mark of two intersecting lines prevailed among the gentiles, but was not altogether absent among the Hebrews as we learn from the impor-

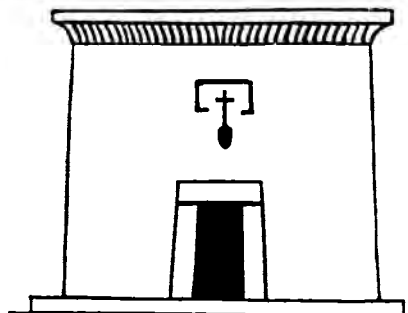
¹ The significance of the *Acts of Paul and Thekla* has been sufficiently and ably set forth by F. Conybeare in his *Monuments of Early Christianity*, pp. 49-60. London: Swan Sonnenschein & Co. 1894.

tant passage in Ezekiel, (chap. ix, 4), where the tav mark (+), viz., two intersecting lines, is placed on the foreheads of the elect.

This same mark, the equilateral cross (+), was not the Christian cross in any of its forms, neither a pole (⋈), nor a T cross (T), nor a Latin cross (†), for the two intersecting lines of the tav mark are of equal length—a shape which was never used for crucifixion. But it was a sacred symbol, not so much among the Hebrews as among the surrounding Pagans in Assyria, in Phenicia, in Egypt, in Greece, in Rome, and also in other countries which had no connexion whatever with Palestine, such as the North of Europe and the undiscovered countries of America.

The typically Christian cross (commonly called the Latin cross) stands on an elongated foot (†), which, except as the symbol of the Phenician Astarte and the Egyptian heart-cross, is a very rare

form in Pagan symbolism. The pre-Christian cross is mostly equilateral. The T shaped cross too is quite a distinct symbol. It is prominent in the worship of the rain-god among the American Indians of Mexico, and among the Teutons as a symbol of Thor's hammer.



THE HOUSE OF GOODNESS.

Showing the ancient Egyptian hieroglyph of a cross standing on a heart.¹

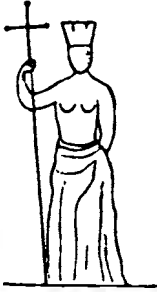
Since the publication of his articles on the cross, the author has succeeded in filling out some gaps in the presentation of this subject, and has procured additional illustrations of great interest which at the time he was unable to procure. He takes the present occasion to insert them as an aftermath rich enough to deserve attention.

In a former article on the cross (Vol. XIII., p. 157) we mentioned among the Egyptian crosses the hieroglyphic symbol of a heart surmounted by a Latin cross (†), which in the ancient Egyptian iconography denoted goodness of heart or saintliness. We can now furnish a picture of the entrance to an institution of charity, which exhibits over the door this symbol covered with an en-

¹ The illustration is reproduced after Sir Gardner Wilkinson (*Ancient Egyptians*, I., p.) from the French translation of Mourant Brock's essay on the cross (p. 45). *La Croix Palenne et Chrétienne*, Paris, Ernest Leroux, 28 rue Bonaparte. 1881.

closure, denoting a building of any kind. Thus the inscription means "house of goodness."

Mourant Brock in his essay on the cross dwells on the similar



ASTARTE. As it appears on a medal in the British Museum.

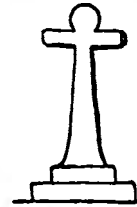


ST. MARGARET. After a statue in Westminster.

ity of the statues of Pagan gods and Christian saints and reproduces (on p. 23) from McBardwell's book *Brief Narrative of St.*



CROSS OF CALLERNISH.



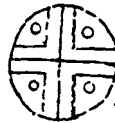
ANCIENT CROSS OF THESSALY.



CROSS IN IRELAND.



CROSS IN GREAT BRITAIN.



HEATHEN CAKE.



CHRISTIAN CAKE.¹

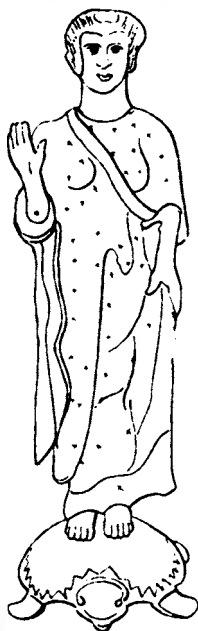
*Margaret*² the figures of an Astarte, the patron-goddess of Sidon,

¹ After Dr. Phéas's report in the proceedings of the Victoria Institute, Vol. VIII., p. 338, *Pre-historic Monuments*. Reproduced from Mourant Brock, *op. cit.*, p. 170.

² Three Sidonian coins showing Astarte on the prow of a ship with a Latin cross in her left arm, were published in *The Open Court*, Vol. XIII., p. 158.

and St. Margaret who figures in certain legends as the *fiancée* of Jesus.

A remarkable instance of a Pagan Latin cross is mapped out on the ground in big menhirs near Callernish on the Lewis Island of the Hebrides. Dr. Phéné in a short notice on this megalithic monument says that it measures in length 380 feet, and the central pillar standing in the middle of a small circle is not less than 60 feet high. Its significance is unknown, but Dr. Phéné's statement can scarcely be doubted that Pagan crosses are found both in Great Britain and Ireland.



ETRUSCAN BRONZE.

A goddess dressed in a garment covered with crosses.



LIMESTONE STATUE FROM
MARION ARSINOË.

A harvest goddess whose garment is ornamented with swastikas.

An Etruscan bronze figure, representing a female deity (presumably a universal mother, an Aphrodite or a Juno), standing on a tortoise, shows the goddess dressed in a garment covered all over with crosses. Another statue from Marion-Arsinoë, which represents a kind of Asiatic Demeter or corn deity, for ears of wheat grow round her shoulders, is clothed in a drapery ornamented with swastikas, after the same fashion.

The Museum at Naples contains an interesting medallion rep-

representing Diana with a cross on her head and the sun and moon at her shoulders. Palm branches grow out of the ground at either side of her foot. The ancient character of the image might be suspected if we had not a great number of the most archaic monuments which represent the same trinity of the sun, the moon, and the cross.¹

An ancient Assyrian chalcedony cylinder which was used for a seal depicts a hunting scene and shows a cross in the sky indicating the presence of divine protection in the same way as on other Assyrian monuments the presence of the deity is rendered visible by a winged disc.

The Maltese cross, the emblem of Anu, the great omnipresent god of heaven, was worn by kings (as we know from the monu-



IMPRESSION OF A CHALCEDONY CYLINDER.
(After Menant.)²



SAMSI VOOL.
King of Assyria with a pectoral
cross, the symbol of the
God Anu.³

ments) as an amulet or badge hanging from a ribbon round the neck upon the breast.

A queer kind of cross whose upper branch is round has been discovered in Thessaly. It bears an inscription which makes reference to funerary rites, and there is a probability that it owes its form to the intention of imitating the Egyptian key of life.

The equilateral pre-Christian cross may owe its origin to notions of a different character. It may represent the synthesis of two opposed principles into a higher unity; a combination of the male and female, or the positive and the negative, or light and

¹ The author wishes to express his indebtedness to the Rev. Michael von Zmigrodski, Dr. Ph. of Sucha, near Cracovic, Galicia, who in assisting him in his search for a reproduction of the Diana-medal with the cross, called his attention to the French translation of Mourant Brock's essay, *La croix païenne et chrétienne*, Paris, Ernest Leroux, 28 Rue Bonaparte. This interesting work appeared first in a London newspaper, but the author failed in his attempt to obtain a copy of the original through the book trade.

² From the collection of the Duke de Luynes.

³ After Mourant Brock.

darkness, or pleasure and pain, or good and evil; but it seems certain that the idea of mapping out thereby the four quarters of the universe was the most prominent underlying notion and the con-



FORMS OF THE GODDESS HATHOR.

As a cow covered with crosses and dots (solar discs) in their four corners.¹



ISIS NURSING HER CHILD HOR.¹



HAR-PA-KHRAD. God the child.²

nexion of this symbol of the four quarters with sun worship appears from the fact that the solar disc is frequently inserted in the four

¹ From Lenormant, *L'Hist. de l'Orient*, Vol. V., p. 183.

² From Lenormant, *Hist. Anc. de l'Or.* Vol. V. pp. 183, 184, and 203.

corners, to designate the rising sun, the midday sun, the setting sun, and the invisible sun in the realm of the dead.

The equilateral cross with dots in its four corners appears in the ancient Egyptian monuments as a sacred symbol of Hat Hor, worshipped under the symbol of a cow, as mother of Ra, the sun. Her son proceeds from her flanks as the rising sun under the name Hor, the child, or Har-pa-Khrad, represented either as being suckled by his mother or seated on a lotus flower. Hor, the son,



GREEK AMPHORA, NOW IN BERLIN.¹

becomes in the Osiris myth the resurrected deity who revenges the death of his father and there is made the son of Isis. Isis too is frequently represented as a cow, which indicates that the ideas of both goddesses were invented to serve the same or similar purposes.

There can be little doubt that Isis, the nursing mother goddess, is the prototype for a whole group of similar representations in classic antiquity not less than in Christian art.

¹ From Baumeister's *Denkmäler*, III. p. 2001.



DIONYSOS-HERMES DRESSED IN A GARMENT ORNAMENTED WITH
CROSSES, LIONS, AND DOLPHINS.¹



ÆNEAS SAVING HIS FATHER.

From an ancient vase. Aphrodite's dress is covered with dotted crosses.
Kreusa follows her husband, and her undergarment, too, shows crosses.

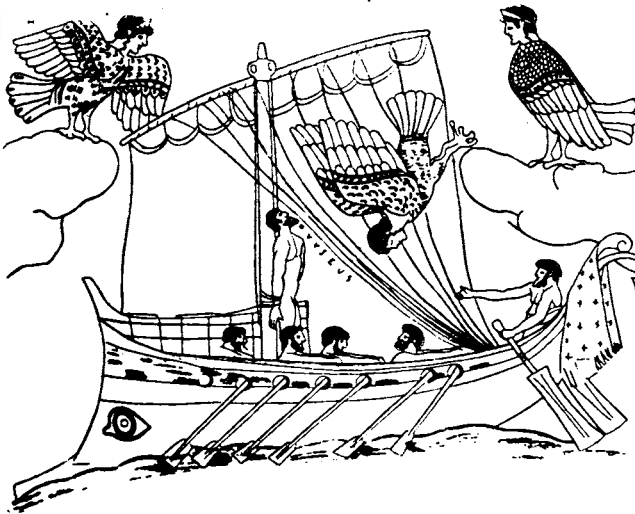
¹ Baumeister's *Denkmäler*, I. p. 432. After Gerhard, *Trinkschalen*, Table IV. 5. The crosses are interpreted as stars, but the fact remains that their shape consists of two intersecting lines—viz., of a cross.

Greek artists represent the cross on the dresses of various deities, such as Aphrodite and Dionysos, and also on the garments



THE BATTLE OF THESEUS WITH THE AMAZONS.¹

One Amazon wears a dress covered with crosses, another one with discs.



PICTURE ON A HYDRIA FROM VULCI, PAINTED IN RED.¹

of men as well as women. Odysseus, when passing the Sirens, has a mantle or some kind of drapery hanging over the stern of his

¹From Baumeister's *Denkmäler*, III. p. 2000, after Fiorelli; and p. 1643, after Mont. Inst., I. 8.

ship, which here as in other places indicates the efficiency of this symbol for salvation from death or generally for protection in danger.¹

That the cross as an amulet and ornament came to Greece from Asia is indicated in the practice of Greek artists making Asiatic warriors and also the Amazons recognisable by dresses ornamented either with discs or crosses.

The frequent occurrence of crosses as religious symbols of various significance is not limited to the Old World, but is also in vogue among the Indians of the New World where its use unquestionably dates back to pre-Christian ages. A glance over the Burbank Indian portraits proves that the old custom survives still, and a close acquaintance with the Indian mode of thinking reveals the fact that these crosses have nothing to do with the cross of Christ.



CHIEF BLACK COYOTE.²

Copyright, 1899, by E. A. Burbank, Chicago.

Chief Black Coyote, in addition to the crosses which he wears as ornaments, has a great number of scars on his breast and arms, many of which are in the shape of crosses. They are explained by the publishers of the Burbank Indian Portraits as follows:

"After several of his children had died, in accordance with Indian custom he underwent a fast of four days as an expiation to the over-ruling spirit. During his fast, in a dream, he heard a voice, resembling the cry of an owl, telling him if he wished to save the lives of his other children, he must cut from his body seventy pieces of flesh and offer them to the sun. This he did and then buried the pieces. The scars are shown on his body. He is a man of much importance in his tribe. After Sitting Bull he came next as a leader in the ghost dance.

¹In addition to the pictures here reproduced we may quote others. Baumeister contains several in his third volume alone, as on pp. 1797 and 1799 (Peleus struggling with Thetis); on p. 1919 (folding garments), and on p. 1655 (an ancient vase-picture from Melos). See further Lenormant, *Elite des monuments céram.*, Plates 76 and 93, where angels wear a cross on a ribbon round the neck.

²Reproduced with the permission of the publishers of the Burbank Indian Portraits, The Arts & Crafts Pub. Co., 215 Wabash ave., Chicago.



CHIEF STINKING BEAR.

RED WOMAN SQUAW.

Copyright, 1899, by E. A. Burbank, Chicago.



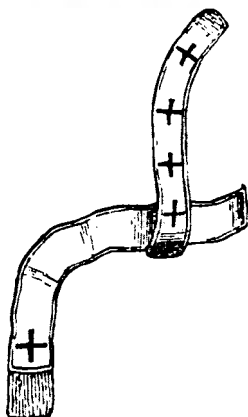
THE RAIN DANCE OF THE COCHITI INDIANS, MEXICO, IN WHICH WOMEN
CARRY A TAU CROSS ON THEIR HEADS.¹

¹ Reproduced from an original photograph as yet unpublished, by Frederick Starr, Professor of Anthropology at the University of Chicago.

The T cross is the symbol of the rain-god among several tribes of the Indians of Central America. We here reproduce a photograph of the rain-dance of the Cochiti, taken by Prof. Frederick Starr of the University of Chicago during his recent visit to the interior of Mexico.

The Christian bishops and officiating priests wear ribbons round their necks called palliums,¹ which were ornamented with crosses, and it is, to say the least, a remarkable coincidence that a young Bacchus wears the same kind of cross-ornamented ribbon on his head.

Roman loaves were marked with crosses, dotted in the corners, but the equilateral cross on the bread was not called a cross, nor did



THE HEAD ORNAMENT OF A
DIONYSOS PICTURE ON AN
ANCIENT VASE.²



DIANA. The original is now
in the Museum at Naples.

it possess the Christian significance of the cross but was the salutary sign, being the mark that served almost all over the world as a symbol of regeneration, of a return to life, of immortality. It was made over the dead, put on clothes and impressed on loaves of bread to prevent evil spirits from taking possession of them.

* *

A signing with the cross took place in the Christian worship on almost every occasion; it was made by the officiating priest

¹ The pallium, originally a mantel worn by the Christian philosophers, ascetics, and monks was gradually reduced in size to the shape of a ribbon and became a garment of distinction. It is of pure wool to indicate its pastoral significance.

² Reproduced from Mourant Brock, *op. cit.*, p. 5.

over himself, over the people, over the disc on the chalice of the Eucharist, over each half of the broken bread, and over the gifts given to the church.¹ That the sign of the martyr instrument of Calvary should have played this prominent part in the church service of the earliest Christians is not probable; but we may assume that we are confronted here with an ancient practice which is simply the traditional method of consecration.

We know that the Galileans were more superstitious than their Jewish brethren in Judea; they believed in demons, and looked



MOULD FOR CASTING, MADE OF SERPENTINE.

From Lydia, now in the Louvre.²

upon every disease as a possession of the Devil. Thus it is but natural that the Nazarenes of Galilee, for the sake of keeping away all spirits, should have made frequent use of the salutary sign. It is not impossible that the salutary sign (sometimes called the sym-

¹ See *Liturgies and other Documents of the Ante-Nicene period*, pages 23, 28, 38, 56, 57, 63, 76, 78, 85, 86, 87, 88, and 90.

² From Ohnefalsch Richter, *Cyprus*, Plate C. 1. There are eight dies, two deities, one male, one female, one small shrine, one lion with handle attached to the back; and four amulets, one solar wheel in the left lower corner, and on the top one disc with rays, one circle and one square divided according to the four quarters.

bol of the god of life) was even before Christ called the sign of the Messiah, and, considering the important part which Jesus played in their imagination, we may fairly assume that the symbol of salvation was retained in their church use under the name seal of Christ.

The seal of Christ, even though it may have had the same shape as the mark of the cross of later centuries, was not interpreted in the sense of the cross of Calvary. The heroine of the Acts of Thekla is reported to have said to St. Paul: "Give me only the seal of Christ and temptation comes not nigh me." Whereupon the Apostle, apparently extending to her the hope of baptism, answers: "Be patient and thou shalt receive what thou seekest."

Here the different versions vary. The Syriac text states directly: "Receive the waters," but the Latin texts present different readings. One codex uses the phrase the "salutary sign," (i. e., *signum salutis*), while another translates "bath of regeneration" (*lavacrum regenerationis*). It appears that the seal of Christ was impressed on the convert at baptism, probably on his forehead, perhaps on several parts of the body; and the probability is that this *signum salutis* was the same salutary mark which is mentioned in Ezekiel, and was the religious symbol commonly used by many nations in pre-Christian ages.

It is noteworthy, however, that the seal of Christ as mentioned in the Acts of Thekla is obviously not identical with the cross, viz., the instrument of capital punishment. While we cannot doubt that it consisted in making two intersecting lines, we must absolutely exclude the idea that the ancient Christians regarded this sign as a symbol of the cross of Calvary.

When wild beasts were let loose on Thekla and she, not having the intention to preserve her life, expected to die, she purposely did not mark herself with the seal of Christ (that is to say, she made not the sign of two intersecting lines), but "kept her arms straight out in the likeness of one crucified on a tree," so as to be ready to die in a Christ-like fashion.¹

The idea that the seal of Christ, the tav mark of Ezekiel, might be the martyr instrument of Calvary, that is, that the two intersecting lines might be interpreted as the *infelix lignum*, does not in the least occur to the author of the Acts of Thekla, neither when he speaks of the former, that is the seal, nor the latter, the cross.

One explanation only is left, viz., that the seal of Christ was originally the equilateral pre-Christian symbol of the four quarters,

¹ See Conybeare's translations in *Early Monuments*, p. 81.

i. e., the salutary sign, and was not intended at all as a cross in the Christian sense. Nor can it have signified the Greek χ , (i. e., *chi*) the initial letter of the word Christ; for the Jewish Christians being ignorant of the Greek language and script, called it a tav mark; and we can only interpret it as being that mark which was used in pre-Christian times for protection against all kinds of evil influences. That this same sign, by the early Christians called "the seal of Christ," was later on identified with the cross and explained as the Greek letter χ (*chi*), the initial of Christ, the Greek translation of Messiah, was but a natural result of discovering the cross of Christ everywhere. And as soon as this interpretation became firmly established in the church, it is natural that the use of the word "seal of Christ" was discarded for the more definite and typically Christian expression, "making the sign of the cross."

GOSPEL PARALLELS FROM PÂLI TEXTS.

Translated from the Originals by ALBERT J. EDMUNDS.

(Second Series).

THE MASTER REMEMBERS A PRE-EXISTENT STATE.

Itivuttaka 22. John xvii. 5. (Not before translated).

THIS was spoken by the Blessed One, spoken by the Arahāt and heard by me.

O monks, be not afraid of good works : such is the name for happiness, for what is wished, desired, dear, and delightful, namely good works. And for a long time have I known, monks, the wished-for, desired, dear, delightful and severally enjoyed results of good works done for a long time. Having practised benevolence for seven years, I did not return to this world during the revolution and evolution of an æon. Yea, monks, for the revolution of an æon I was an Angel of Splendour, and during the evolution I rose again in the empty palace of the Brahmās. Yea, then, O monks, I was a Brahmā, the great Brahmā, conquering, unconquered, all-seeing, controlling. And thirty-six times, O monks, was I Sakko, the lord of the angels ; many hundreds of times I was a king, a righteous emperor, a king of righteousness,¹ victorious in the four quarters, securely established in my country, and possessed of the seven treasures. Now what was the doctrine of that region and kingdom ? This is what I thought of it, O monks : What deed of mine is this the fruit of ? Of what deed is this the result, whereby now I am thus magical and mighty ? This is what I thought of it, O monks : This is the fruit of three deeds of mine, the result of three deeds, whereby now I am thus magical and mighty, to wit : alms, control, and abstinence.

[The substance of this Sutta is then put into two stanzas].

¹ Or, King by right, the Epic title of a Hindū suzerain.

Exactly this is the meaning of what the Blessed One said, and thus it was heard by me.

FAITH TO REMOVE MOUNTAINS.

Numerical Collection VI. 24. Matthew xvii. 20, 21. (Not before translated.)

(Repeated in Matt. xxi, which is parallel with Mark xi. But the added verse which appears in some MSS., Matt. xvii. 21, is analogous to Gotamo's exclamation about ignorance).

Monks, a monk endowed with six qualities can cleave the Himālaya, the monarch of mountains. But what a doctrine for vile ignorance! Which are the six?

Monks, suppose a monk is expert in the attainment of Trance (or Concentration), in the maintenance thereof and the rising therefrom; expert in the obscure intimations of trance, in its range, and in earnest aspiration thereunto. A monk endowed with these six qualities, O monks, can cleave the Himālaya, the monarch of mountains. But what a doctrine for vile ignorance!

THE BELOVED DISCIPLE REACHES HEAVEN HERE.

Numerical Collection III. 80. John xxi. 22. Cf. Mark ix. 1. (Not before translated).

Udāyi, if Ânando should die with passion unsubdued, yet by his believing heart he would seven times obtain an angelic kingdom among the angels; and even in this India he would obtain a great kingdom seven times. But, O Udāyi, even in this life, will Ânando enter Nirvāṇa.

THE MASTER KNOWS GOD AND HIS KINGDOM.

Long Collection, Dialogue 13. (Translated in S. B. E. XI. and in *Sacred Books of the Buddhists*, Vol. 2, each time by Rhys Davids: 1881 and 1899).

John vi. 46; vii. 29; viii. 42, 55.

That man, O Vāsetṭha, born and brought up at Manasākaṭa, might hesitate or falter when asked the way thereto. But not so does the Tathāgato hesitate or falter when asked of the kingdom of God (world of Brahmā) or the path that goeth thereto. For I, O Vāsetṭha, know both God and the Kingdom of God and the path that goeth thereto; I know it even as¹ one who hath entered the Kingdom of God and been born there.

¹ The Siam text has *even as Brahmā* (i. e., God or archangel). Though the Buddhists held that the supreme Godhead was an office, not a person, and that Buddha himself had held that office in a past eternity (see above), yet they ascribed to the chief Brahmā all the Christian titles of the Deity. (*Long Collection*, Dialogues I and XI.)

THE MISSIONARY CHARGE.

Mark vi. 7-13; Matthew xxviii. 19, 20; Luke x. 1.

Mahāvaggo I, 10, 11. (Translated in S. B. E. XIII. p. 112).

At that time there were sixty-one¹ Arahats in the world.

And the Blessed One said unto the monks: "I am delivered O monks, from all fetters, human and divine. Ye, O monks, are also delivered therefrom. Go forth, O monks, on your journey for the weal and the welfare of much people, out of compassion for the world, and for the wealth and the weal and the welfare of angels and mortals. Go no two of you the same way. Preach, O monks, the Doctrine which is glorious in its origin, glorious at the climax, glorious at the end, in the spirit and the letter. Proclaim a religious life wholly perfect and thoroughly pure. There are beings whose mental eyes are darkened by hardly any dust, but unless they hear the Doctrine they will perish. They will understand it.

AN ETERNAL SIN.

Mark iii. 29. (R. V. 1881.) Cullavaggo VII. 3. (Translated in S. B. E. xx. p. 254)

"Is it true, Devadatto, as they say, that thou goest about to stir up schism in the Order and schism in our society?"—"It is true, O Blessed One."—"Enough, Devadatto. Let not schism in the Order be pleasing unto thee: serious, O Devadatto, is a schism in the Order. Whosoever, Devadatto, divides the Order when it is at peace gives birth to an *æon-lasting fault*, and for an æon he is tormented in hell. But whosoever, Devadatto, makes peace in the Order when it has been divided gives birth to the highest merit (literally, Brahmā-merit), and for an æon he is happy in Paradise."

[The words αἰωνιον ἀμαρτημα in Mark iii. 29, are the exact verbal equivalent of the Pāli *kappaṭṭhikam kibbisam*, or, as the Siam edition has it, *kappaṭṭhitikam*. Schism is the deadly sin of Buddhism, the other four of its deadly sins being rare deeds of violence—matricide, parricide, saint-murder and wounding a Buddha. The deadly sin of the New Testament is resistance to the Divine operation, while that of the Mazdeans is self-defilement. (S. B. E. iv., p. 101.) The Christian and Buddhist ones are of long retribution, but terminable, for everlasting hell was unknown to the Jews at the time of Christ, and therefore unknown to the Master's terms. Only the Mazdean uses the language of absolute despair; but if the

¹ Rendel Harris suggests a parallel, if not a connexion, with Luke's Seventy who went to the Gentiles.

universalism of the Bundahish be a true tradition from the lost Dâmdâd Nosk, then even this sin is finally forgiven.]

TRANSFIGURATION.

Mark ix. 2-8. Book of the Great Decease, p. 46 of the Pâli. (Translated in S. B. E. XI.)

Now not long after Pukkuso the Mallian had gone, the venerable Ânando placed upon the person of the Blessed One that pair of gold-cloth robes, burnished and ready for wear. And when so placed upon the person of the Blessed One it appeared bereft of its brightness.

And the venerable Ânando said unto the Blessed One: "Wonderful, O Lord! Marvellous, O Lord! that the color of the Tathâgato's skin should be so pure and purified. For when I placed upon the person of the Blessed One this pair of gold-cloth robes, burnished and ready for wear, it appeared bereft of its brightness."

Ânando, it is even so. There are two occasions, Ânando, when the color of a Tathâgato's skin becomes pure and exceeding purified. What are the two?—On the night, Ânando, wherein a Tathâgato is supernally enlightened with incomparable and perfect Enlightenment, and on the night when he enters Nirvâṇa with that kind¹ of Nirvâṇa which leaves no substrata behind: on these two occasions the color of a Tathâgato's skin becomes pure and exceeding purified. And now, Ânando, this day, in the third watch of the night, in the garden ground of Kusinârâ, in the sâl-grove of the Mallians, between the twin sâl-trees, will take place the Tathâgato's passage into Nirvâṇa. Come, Ânando, let us go on unto the river Kakutthâ. "Even so, Lord," said the venerable Ânando, in assent unto the Blessed One.

The pair of burnished gold-cloth robes were brought by Pukkuso:

The Master, when begirt therewith, in golden color shone.
[The stanza proclaims the antiquity of the legend.]

THE NATIVITY.

See *The Open Court* for August, 1898, with critical notes in November, 1898, and June, 1899. The same story from another and fuller version in the Canon has been translated by me in separate form.

¹ See *Itivuttaka* 44, for the two kinds of Nirvâṇa. I do not fear to translate thus in view of this remarkable passage, so obviously referred to in our text. One line of the primitive *Itivuttaka* is worth whole pages of the developed Dialogues.

(*The Marvellous Birth of the Buddhas*: Philadelphia, McVey, 1899. Price, 25 cents). The oldest Canonical Nativity legend is that of the *Sutta Nipatto* (translated in S. B. E., Vol. X.) I hope in the future to publish a new translation.

POWER OVER EVIL SPIRITS AND ASSOCIATION WITH ANGELS.

Mark iii. 2; Matthew xxvi. 53; John i. 51. Udāna I. 7.

Thus have I heard. At one season the Blessed One was staying at Pātālī, at the Goat-herd Shrine, in the haunt of the Goblin Goat-herd. Now at that season the Blessed One was sitting throughout the thick darkness of the night in the open air, and one by one an angel would touch him. Then the Goblin Goat-herd, being seized with fear and bristling terror, approached the Blessed One, and when near him uttered thrice his cry of "Blighted! Affrighted!" and said in his fright: "This demon is thine, O Prophet!"¹

Then the Blessed One, when he had understood the fact, gave vent, upon that occasion, to the following Udāna:

"When the Brāhman hath passed beyond his own ideas
(*dhammā*),

Then doth he overcome this demon and monster."

¹ The Pali *Samano*, in contradistinction to *Brāhmano*, is precisely the Old Testament prophet as against the priest. Buddha, however, persistently idealised the word "Brāhman," as in our present stanzas, to mean an Arahāt. But in the familiar phrase, *samano-brāhmanā*, the word is used in its usual sense, and I should translate: "prophets and priests," or "philosophers and brahmins." The *samanas* were the freethinking ascetics of the caste of the nobles, like Gotamo himself, who did not believe in priestly orthodoxy. They united the qualities of the Hebrew prophet and the Greek philosopher, having the fervour of the one and the dialectic of the other.

MISCELLANEOUS.

HINDU PRAYERS FOR PROF. MAX MÜLLER.

We learn with great relief from a personal letter that our dear friend and contributor Prof. Max Müller is making very satisfactory progress toward recovery from his recent severe illness. The Professor's world-wide reputation and the love in which he is held in Oriental countries is evidenced by the following quaint and characteristic communication from an old and learned Brahmin at Madras which we requote from *Literature*:

"When I saw the Professor was seriously ill, tears trickled down my cheeks unconsciously. When I told my friends who are spending the last days of their life with me, and read with me the *Bhagavad-gītā* and similar religious books, they were all very much over-powered with grief. Last night when we were all going to our temple as usual, it was suggested to me that we should have some special service performed by the temple priest for his complete restoration. All my friends followed me to the temple, but when we told the priest of our wish he raised various objections. He could not, he said, offer prayers and chant hymns in the name of one who is not a Hindu by birth, and, if he did so, he would be dismissed from the service, and excommunicated by his caste. We discussed the subject with him at length, and told him that Prof. Max Müller, though a European by birth and in garb, was virtually more than a Hindu. When some of my friends offered to pay him ample remuneration, he at last consented, and when the next day at eleven o'clock at night we came to the temple with cocoanuts, flowers, betel-leaves, nuts, and camphor, which we handed to the priest, he began to chant the Matras and offer prayers to God for about an hour or so. After everything was done, the priest returned to us some of our gifts, and requested that we should send them to Prof. Max Müller."

Such a service has never been performed before for an unbeliever, and it is a remarkable fact, and a decisive contribution to the theory of the efficacy of prayer, that according to *Literature* the Professor's recovery seems to have occurred simultaneously with the chanting of the Matras and the heartfelt offering up of the cocoanuts and the betel-leaves in India.

THE PSYCHOLOGY OF RELIGION.

To the Editor of The Open Court:

I send you a *questionnaire* which I have been using during the past year to gather material upon the Contents of Religious Consciousness. Although I meet

with great difficulties, I have so far succeeded sufficiently to feel encouraged and the value of the answers I receive induce me to make a renewed effort to obtain answers.

I desire answers from all kinds of persons : Protestants, Catholics, Jews, Agnostics and even from those who believe themselves without religion of any kind. Negative answers are instructive.

BRYN MAWR, PA., March 17, 1900.

JAMES H. LEUBA.

The following is the circular that Professor Leuba sends. We recommend it to the attention of the readers of *The Open Court*, who will be doing a service to scientific religious investigation by complying so far as possible with his requests

PROFESSOR LEUBA'S CIRCULAR.

Although that part of our experiences called religious life is a world of many inscrutable mysteries, careful and extended observations may throw much light on many obscure points. It is in the hope that some of the current ideas concerning religion may be made clearer, or be brought nearer to the truth, that this *questionnaire* is sent forth with an earnest appeal to all those who, from any standpoint whatsoever, have at heart the welfare of religion, that they make the little effort required for adequately answering the following questions.

If the last three questions (7, 8 and 9) appear too difficult, let at least the others be answered.

It is of the highest importance that one's *actual experiences* be faithfully consulted and accurately expressed. Not that which *might be* or *would be* experienced, but that which now makes up our religious consciousness should be stated.

The task will be made easier for the correspondents if, before answering, they place themselves in the religious attitude with which they are familiar.

We take the liberty of calling attention to certain expressions frequently used, but having no definite meaning. To say, for instance, "It is an aspiration towards the ideal," or "I feel the Spirit of God," or to speak of "the feeling of communion with God," is to make use of terms the meaning of which may differ widely. The ideal of one man is not necessarily that of his neighbor, and the statement, "I feel the Spirit of God," may describe states having but little analogy with each other ; there are, for instance, religions in which the ecstasy produced by certain intoxicating decoctions is called "divine possession." It will consequently be necessary either to avoid entirely these ill-determined expressions, or then to describe them and say, as far as possible, what sort of feelings, emotions, thoughts, constitute the spiritual experience considered.

The name of the correspondent may be sent on a separate sheet of paper, and will in every case be kept secret.

1. (a) Do you usually realise the reasons which prompt you to religious practices ? What are they ?
(b) Why, to what end, for what purpose, do you perform devotional exercises, be they private or public ?
2. What circumstances, what places, what objects, and what periods of your life incline you most strongly towards religious practices ? Can you say why it is so ?
3. State what you consider to be the most characteristically religious among your experiences. Describe, if possible, this experience in terms of the emotional and intellectual life. In what circumstances do you, or did you have such an experience ?

4. Have you never in the course of your life taken for religious certain feelings, emotions or thoughts which later you classed as non-religious? If so, give a few instances.
5. In what religious atmosphere have you been brought up? What form of religion do you prefer? Are you now a communicant or non-communicant church member, or out of sympathy with churches in general? Have you strong religious needs? What are they? Describe them and say how you satisfy them. Or do you believe yourself devoid of religious feelings?
6. Give your name, sex, approximate age, and your occupation. Add your address, if you choose.
7. (a) Describe as minutely as possible the contents of your consciousness (feelings, emotions, thoughts) when you are in a religious attitude, at church or in your private devotions.
(b) Do not fail to describe also the bodily sensations, etc., which may accompany your religious states.
8. Are the religious feelings, thoughts or emotions which you have described akin to, or comparable with, other non-religious feelings, thoughts or emotions? If so, what are the likenesses and the dissemblances which you notice? Give some concrete examples.
9. (a) Are there thoughts which you would call religious? Give a few examples.
(b) How does a religious thought differ in experience from a non-religious thought?

All answers to be sent to James H. Leuba, Bryn Mawr, Pa.

IMMORTALITY.

The restless ocean's white-capped waves roll on
In motion endless. On the strands they break,
And then roll back. But on the golden sands
Small pools are left behind, disconsolate.

Anon the mighty ocean gathers strength,
And quick returning to the patient shore,
Its waves climb up and lovingly
Embrace the eager, waiting, wistful pools.

Upon the shores of time forever flow
The waters of eternal life. Man is
A pool upon the strand. Anon the waves
Reach forward and pools and ocean joins.

PHILADELPHIA, PA.

RABBI J. LEONARD LEVY.

BOOK REVIEWS.

THE BIBLE FOR HOME READING. Edited with comments and reflexions for the use of Jewish parents and children. By C. G. Montefiore. London and New York: The Macmillan Co. 1899. Part I, Pp., xviii, 624. Price, \$1.25. Part II Pp., xxvii, 799. Price, \$1.25.

The popularity of Mr. Montefiore's work is evidenced by the fact that it is now in its third edition although the first was published in 1896. The idea which is at

the bottom of its compilation is one that fits it for use not only in Jewish homes but in all homes where the Bible is read.

That idea is this: That there are many parents who are unwilling to place the entire Bible in the hands of their children; that mere extracts from the Bible without comment will hardly suit their purpose better; and that in nearly all cases they want some real help towards its explanation. "These people," says Montefiore, "no longer believe that every word in the Bible is historically accurate, nor are they unaware that there are many varieties or degrees in its ethical and religious teaching. Some things in the Bible seem morally and religiously on a far higher level than other things. Some laws of the Pentateuch seem to them temporary and obsolescent, others permanent and abiding. Though they may not have read a single book on Biblical criticism or theology, they know that the great scholars of to-day think very differently about the age and authorship of the books of the Bible from what was thought about them by their own teachers or parents. They are well aware that it is now widely maintained by the best authorities that Moses did not write the entire Pentateuch, and that it is not the work of one author or of one age, but of many authors and many ages. They have heard that few scholars now believe that David or Solomon wrote any, and that many scholars believe that they wrote none, of the Psalms or Proverbs which bear their name. It is not an unfamiliar fact to them that many of the prophecies were not and never can be fulfilled."

Now, it is Mr. Montefiore's firm opinion that these facts should not be withheld from young minds, if only for the reason that the religious recoil which is sure to occur in subsequent life will work greater damage than a direct and open inculcation of the truths of modern biblical science. "There is no reason to my mind," he continues, "why one cannot say as reverently that the Pentateuch was written by many people as that it was written by Moses. A child will accept the one statement as readily as the other. And if it knows the truth from the first, it will have nothing to unlearn; it will be liable to no shock or revelation from which we may fear recoil. The command, 'Thou shalt love thy neighbour as thyself,' is not less great because there are many things in the Bible on lower ethical levels. I have not scrupled to point out that we do the Bible an ill turn by refusing to indicate to the child what is less good in it and what is more. The noblest and grandest passages shine out all the more resplendently if differences of worth are freely recognised."

Mr. Montefiore is thoroughly conscious of the injury that can be done by defending as the word of God what is morally or religiously false in the Bible, and he has consequently been careful either to omit such stories as are not in accord with this canon, or if admitted to proclaim openly their falsity.

The first volume begins with Abraham and goes to Nehemiah. Mr. Montefiore begins with Abraham, and not with Genesis, for the reason that the latter is "too full of grave moral and religious difficulties to form a suitable beginning." A collection of laws from the Pentateuch is given. "Joshua and Judges (except the story of Samson) are entirely omitted; tales of bloodshed and slaughter, unredeemed by moral teaching, yet set too often in a pseudo-religious framework, are very unsuitable in a Bible for Home Reading." Much of the prophetic literature is also included in the first volume, and is inserted in its chronological order.

The second volume is intended rather for "grown-up" children, and is made up of selections from the so-called "wisdom literature," the Prophets, the Psalter and of extracts from the Apocrypha. This last alone is an excellent feature.

Throughout both volumes there reigns a note of free and frank criticism of the Biblical books, as regards their dates, composition and contents, and use has been made of the work of the best modern critics for this purpose. The history of the Jewish nation and of its literature is briefly given; each book is prefaced with historical explanations; and gaps in the narrative or the thought are filled out with appropriate exegetic material. In fine, Mr. Montefiore has produced a work of a sterling value, and one which has a wide field of usefulness. H.

The second volume of the report of the United States Commissioner of Education for the year 1897-98 has appeared. The volume contains a vast amount of information that will be valuable to teachers and to persons in any way interested in the progress of the science of education. We have a history of child-study in the United States, with exhaustive bibliographies; the report of the Committee of Twelve of the Modern Language Association of America; a chapter on university types and ideals; one on medical inspection of schools; one on methods of instruction in agriculture; another on the consular reports on the education of foreign countries; together with a dozen or so additional chapters on professional mechanical, industrial, and normal schools, statistics, and educational topics. The volume is a stout one of nearly 1500 pages, and well indexed. The only objection to it is that it is printed in the usual funereal style of the government publications. (Washington, D. C.: Government Printing Office.)

We have recently received a report of the proceedings of the International Congress for Commercial Instruction, held in Venice in May, 1899, under the presidency of Alessandro Pascolato, parliamentary deputy, and edited by the general secretary of the congress, Eduardo Vivanti. The main value of the reports consists of the addresses made by delegates from different parts of the world on the present state of commercial education; they also give the past history and the future outlook for this important branch of instruction. The addresses are in English, French, German and Italian, and so are in the main accessible to readers of all nations. (Venice: Prem. Stab. Tipo-Lit. Di Carlo Ferrari. 1899.)

Mr. John P. Altgeld has gathered together in a large volume of over 1000 pages his main literary and public productions both as an individual and as governor of the State of Illinois. Here will be found the facts which determined his course as a public man on so many of the issues which aroused the attention of the country some years ago; and to the student of the money-question, the tariff, the government-administration they will afford welcome material for forming a judgment upon Ex-Governor Altgeld's public actions. The title of the book is *Live Questions*; it contains portraits of Mr. and Mrs. Altgeld, of the executive mansion at Springfield, the state capitol, and other buildings. (Chicago: Publisher's Agents, Geo. S. Bowen & Son, Unity Building. 1899.)

Peter Eckler, 35 Fulton St., New York City, has issued in his library of Liberal Classics a translation of Schopenhauer's tract, *The Will in Nature*. (Pages, 177 Price, 50 cents.)

Teachers will find Mr. J. Welton's *Logical Bases of Education* to be a good manual of logic. The book has been written from the educational point of view. It is the author's belief that the rational bases of all true educational work are to be sought for in the modern development of logical theory, and of this development

he has given a fair exposition. The book is published in Macmillan's excellent series of *Manuals for Teachers*. (Pages, 288. Price, \$1.00.)

NOTES.

Fra Elbertus (alias Mr. Elbert Hubbard) publishes his Credo in the latest number of the *Philistine* which reads as follows:

"I believe in the Motherhood of God.

"I believe in the blessed Trinity of Father, Mother and Child.

"I believe that God is here, and that we are as near Him now as we ever shall be. I do not believe He started this world a-going and went away and left it to run itself.

"I believe in the sacredness of the human body, this transient dwelling place of a living soul, and so I deem it the duty of every man and every woman to keep his or her body beautiful through right thinking and right living.

"I believe that the love of man for woman, and the love of woman for man, is holy; and that this love in all of its promptings is as much an emanation of the Divine Spirit, as man's love for God, or the most daring hazards of human mind.

"I believe in salvation through economic, social and spiritual freedom.

"I believe John Ruskin, William Morris, Henry Thoreau, Walt Whitman and Leo Tolstoy to be Prophets of God and they should rank in mental reach and spiritual insight with Elijah, Hosea, Ezekiel and Isaiah.

"I believe we are now living in Eternity as much as we ever shall.

"I believe that the best way to prepare for a Future Life is to live one day at a time, and do the work you can do the best, doing it as well as you can.

"I believe there is no devil but fear.

"I believe that no one can harm you but yourself.

"I believe that we are all sons of God and it doth not yet appear what we shall be.

"I believe in freedom—social, economic, domestic, political, mental, spiritual.

"I believe in every man minding his own business.

"I believe that men are inspired to-day as much as men ever were.

"I believe in sunshine, fresh air, friendship, calm sleep, beautiful thoughts.

"I believe in the paradox of success through failure.

"I believe in the purifying process of sorrow, and I believe that death is a manifestation of Life.

"I believe the Universe is planned for good.

"I believe it possible that I will make other creeds, and change this one, or add to it, from time to time, as new light may come to me."

Père Hyacinthe, the celebrated preacher and religious orator of France, made recently in a letter to Dr. Max Nordau an extremely interesting proposition à propos of the Dreyfus trial. Justified in the eyes of the world, Dreyfus is still condemned by *official* France; so Jesus, also long justified in the eyes of the world, is condemned by *official* Judaism. Let the Grand Revision of the ages now take place, pleads Père Hyacinthe, that of the trial of Jesus, the Great Jew, and let Him be rehabilitated, in the bosom of his own people! Then the curse of anti-semitism will be a thing of the past, and God will bless Israel.

The annual meeting of the National Congress of Mothers will be held in Des Moines, Iowa, May 21st to 25th inclusive.



JOHN BERNARD STALLO.

Frontispiece to *The Open Court*.

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JAMES MARTINEAU.

BY MONCURE D. CONWAY.

WHEN Theodore Parker went silent, his congregation in Boston Music Hall listened to many different voices, but sometimes they heard that of which Carlyle said, "I hear but one voice and that comes from Concord." When Emerson was to give the Sunday discourse the Hall was crowded with the most cultured people in Boston and its suburbs, and some came from Salem, Lynn, Concord. The last sermon I heard in America before leaving for England, thirty-seven years ago, was from Emerson. Familiar as I was with his lyceum lectures they could not with all their charm prepare one for this inspiration, this fountain of spiritual power, this pathos that filled our eyes with tears. And this was the man who was lost to the pulpit because the Unitarian Church preferred the sacramental symbols of a broken body and shed blood in ancient Judæa to the living spirit rising above the dead symbols! Great as Emerson was in literature, his hereditary and natural place was in the pulpit, which his essays did indeed leaven, under whatever sectarian forms, but only along with more admixture of chaff than of honest meal.

With Emerson's wonderful sermon still ringing in my ears I voyaged to England, and the next sermon I heard was from James Martineau. His chapel (in Little Portland street) was a relic of a time when among dissenters there was a sort of cult of ugliness. Fine architecture and stained glass were decorations of the 'Scarlet Woman' whether Roman or Anglican. In the gloomy little chapel I waited until the man should appear whose "Endeavours after the Christian Life" had brought me help in my solitude, far away in Virginia and Maryland, when I was groping along my

thorny path out of the orthodox ministry. When Martineau presently ascended the pulpit I was impressed by his noble figure, but when his face shone upon us through the chapel gloom, when his voice so gracious and clear was heard, and his lowly simplicity witnessed the greatness of his thought, I said, this is Emerson again! It is Emerson not banished from his pulpit, but made into the Unitarian leader!

It is true that neither in this first sermon that I heard from him, nor in others, did Martineau work the miracle that we witnessed when Emerson occasionally re-ascended the pulpit. That cannot be done in a gown, beneath which wings must be folded. But this English minister was meeting the spiritual need and hunger of spirits finely touched to fine issues. In his audience, generally between 300 and 400, none but a few children (for most of these listened to him in a separate service) had come casually, or except by inward attraction. They did not come for God's sake, nor for any show of either conformity or non-conformity, but were individual minds taking to heart things generally conventionalised. There sat Sir Charles Lyell, who had substituted a scientific account of the earth's formation for that in Genesis, and who with his beautiful and intellectual lady kept abreast of religious studies; there was Miss Frances Power Cobbe, author of the ablest work on Intuitive Morals, and her friend Miss Lloyd; there was his own son Russell Martineau, the great Hebraist, whose veracity prevented his acceptance of a place among the Revisers of the Authorised Version (1881) because they had determined on the retention of certain admitted but sacred mistranslations; there were the students of the Unitarian Divinity College (now removed to Oxford) trained to become the teachers,—such as the present professors Estlin Carpenter and Drummond, and Charles Hargrove, of Leeds, where his "Mill Hill Pulpit" has become a rational and moral Sinai in rebuke of belligerent injustice, cruelty, and vengeance. But it would be a long catalogue that should name the distinguished men and women who found their nurture or their nourishment in that small chapel in its obscure little street, and who in the beauty and wisdom and exaltation of Martineau's discourse did not envy the cathedrals their splendid altars or arches or flaming windows. When, as time went on, I gradually knew more about the variety of minds gathered around the great preacher, and how widely different opinions were developed under his teaching, along with unity of sentiment, this impressed me as an especial sign of their teacher's art and genius. Buddha described the Great Law as the rain fall-

ing on the thirsty earth, where each grass-blade, each flower, each tree, drew up into itself that which was needed for its several growth and fruit.

Emerson remarked to me, when I was at Divinity College, that he had observed more progressiveness and enthusiasm in ministers



JAMES MARTINEAU.

who had come out of orthodoxy than in those born in Unitarian families. It is natural that those whose freedom has involved struggle and personal distress should carry a certain polemical heat into their ministry. But this is at some cost. Of this I was reminded by the remark of another great American, Dr. Oliver Wen-

dell Holmes. The last time I met him, and it was not long before his death, he said, "You and I have spent some of the best years of our lives merely clearing away the rubbish out of our path." The career of Martineau, born and trained among liberal thinkers, suggests that the better service may be done by those who have had no personal quarrel with the dogmas and superstitions they have to clear away from the paths of others. Less smoke mingles with the flame of their lamp. They speak from an elevation above the suspicion of animus or bias.

A man may too, according to Darwin, inherit from his ancestors characteristics which they had to acquire. Old David Martineau the Huguenot, who founded the race of Martineaus in England, layman and surgeon as he was, had yet enough enthusiasm for his Protestantism and his Calvinism to leave his home and country rather than surrender his principles to the French persecutors, and he endowed his descendants with the courage and self-truthfulness which led them to migrate from Calvinism, and next from orthodoxy. So that James Martineau's personal conflict with orthodoxy preceded his birth, while the force represented in it was not lost but transmitted to James, to Harriet, to the admirable artist Martineau, to Sir Robert Martineau who did so much for the culture and welfare of Birmingham.

At Norwich they point out to strangers the old home of the Martineaus. The Huguenot and his son Philip were surgeons of high rank in science and both are represented in the *Philosophical Transactions* by memoirs on professional points of importance. James Martineau also aspired to a scientific, though not to a surgical or medical, career. Yet one may say that it was the healing instinct in him that prevailed when he abandoned in youth the studies of a civil engineer to deal with the mental and moral diseases of his time.

And what operations did this gentlest of physicians perform during his long life! The England into which he was born was one now almost incredible. When Martineau was a studious boy in his fifteenth year, already well taught in the free and tolerant religion which Quakerism and Unitarianism had made the very atmosphere of Norwich, churchmen and dissenters had united to suppress the publication and circulation of theistic literature. The traditions of England being on the side of liberty of printing, these theological persecutors had to avail themselves of a moral disguise: they utilised the Society for the Suppression of Vice. On the ground that denial of the divine inspiration and authority of the Bible was

an attack on public morals, two particularly moral books were fixed on for prosecution, and in 1819 Richard Carlisle was sent to pass nine years in prison for publishing them, and his wife and even their shop boys imprisoned for selling them. The two books were Paine's *Age of Reason* and Palmer's *Principles of Nature*. Any one who reads those works will know that they are not only morally clean but written mainly in defense of a higher standard of morality than biblical authority admits or sanctions. Now, both of the books are traceable to the heretical atmosphere for which Norwich was historically celebrated and which included the neighboring town of Thetford, where Paine was born. And Palmer, the scholarly American clergyman, converted by the *Age of Reason*, affirmed in his *Principles of Nature* ideas that startlingly anticipate the philosophy of Martineau. The books for which publishers and booksellers were imprisoned simply raise the "inner light" of conscience and reason above the scriptures of barbarous ages, as it was raised in the two Quaker meeting-houses of Norwich and others in Norfolk, and also by Martineau's masters, Carpenter and Wellbeloved, and it must have been a shock to these liberal thinkers that such a persecution could occur. The outrage was more grievous because the prosecutors arraigned liberal criticism as immorality, and worst of all, many London Unitarians, panic-stricken by the fear of being associated with Paine's principles, joined in the persecution.

Young Martineau, conservative in temperament and no doubt also by training, probably had little interest in Paine's political theories, but the peril to free inquiry and printing, its punishment as both vice and crime, involving the best men he had ever known could not fail to stir him deeply. All around him eminent clergymen of all denominations were proving the necessity of suppressing such books by clear warrant of "Holy Writ." The learned laymen were largely deists, but they united with the superstitious masses because the Paine and Palmer propaganda was permeated by opposition to kingcraft as well as priestcraft. This bifold radicalism had become a sort of religion and enthusiasm, and the lurid afterglow of the French Revolution was still visible enough to intimidate even liberal minds.

It must have required a passionate love of truth, and also faith in the people's right to truth, for this handsome young aristocrat to leave his scientific plan and devote himself to the exploration of that Bible to which religious liberty was sacrificed. For the duty of a thinker to utter the truth publicly was a rare doctrine at that time. Intellectual men held the true ethics to be suppression of

the truth. Thomas Carlyle told me that when he came to London he went to hear W. J. Fox preach at South Place Chapel and was shocked at hearing him discussing important problems before people not competent to judge of such matters. He also said that when Strauss published his *Leben Jesu* its views were such as were already held by various men of his acquaintance, but none would have ever thought of publishing them. Carlyle did not approve of Strauss' publishing his book; Tennyson, who substantially agreed with Martineau's views regretted their publication; and even Matthew Arnold in the first steps of his career censured Colenso for not writing his Biblical criticisms in Latin. With regard to Tennyson it should be said that his favor for exclusively esoteric expression of sceptical ideas was due to his tenderness for beliefs in which many found consolation. This Martineau recognised, but wrote, "I cannot see that we are intrusted with any right of suppression when once profoundly convinced of a truth not yet within others' reach." This letter was written to Tennyson's son after the poet's death, and one may form some estimate from this and the other opinions cited how strong was ethical obstruction to the proclamation of truth when Martineau's ministerial career began. Indeed I believe that he may be credited with being the first scholar of high social position who entered on a ministry quite uncommitted to any sect and absolutely consecrated to the search for truth. This was a new departure, and though he was made a Unitarian leader Unitarianism had to come to him, not he to it, and had to follow him.

In fact, I should say that Martineau possessed a very rare kind of genius,—a genius for truth in itself, which is very different from what theologians call "the truth." Through all the creeds and scriptures labelled "the truth," and over the ruins of systems, Martineau followed in every footprint of the ever-advancing spirit of truth. Many years ago, in a small assembly of liberal ministers when I was present, Martineau did away with every vestige of the Messianic theory of Jesus. After the discussion that followed he answered the criticisms of his statement, and finally said, "One argument I must decline to consider, that is the argument from consequences. How our customary phrases, prayer-books, hymns, may be affected by recognition of facts, or whatever may be the practical consequences of ascertained truth, are considerations not pertinent to an inquiry for truth." I may not have the exact words but I have the substance of what Martineau said, for this and the grand calmness with which he affirmed the law, inspired a discourse I gave soon after, printed with the title "Consequences."

I remarked in him a special antipathy to superstition probably derived from his memory of the time when Bibliolatry demanded human sacrifices,—and indeed not merely sacrifices of human liberty, for two deists died of their imprisonment, and the health of all suffered. After returning from India I was mentioning scenes in the religious festivals there, and their resemblance to some in Europe, when he remarked that he had always avoided places where he was likely to witness rites of superstition, as anything of that kind was so repugnant as even to afflict him.

The subscription to articles necessary to enter the English Universities was recognised by most liberal thinkers as a mere form, but Martineau could not be persuaded to sign them, and pursued his studies at the school of Dr. Carpenter in Bristol, and at Manchester College (Unitarian) in London, and then went over to Germany. He returned to England with a better equipment, even in a scholastic sense, than any Oxonian of his time. About sixty years ago the English clergy began to wake up to the terrible fact that a Unitarian minister had arisen who surpassed them all in philosophical culture, in biblical criticism, in Greek, Latin, and Hebrew, also in eloquence, and further that his character and life were in notable contrast with clerical arrogance and cant: Notably unambitious, and with a humility that disarmed intolerance, Martineau felt his vocation to be that of ministry to individual minds and hearts in their doubts and sorrows. But he realised also that his studies and knowledge imposed on him the duty of revising the dogmatic fictions, and correcting the biblical errors, prevailing around him, and doing too much practical harm and injustice to claim the tenderness demanded by Tennyson for consolatory illusions. That dogma and superstition now plead *ad misericordiam* is largely the work of Martineau's persistent criticisms. And yet he took little pains to circulate them, none to popularise them. He wrote articles in the Unitarian *Monthly Repository*, and in the later *Prospective Review*, his chapel was attended by thinkers, and he gave lectures in the Unitarian Divinity College; and it was mainly through these public teachers of his training that the waves of Martineau's influence widened out.

That his long ministry should have been represented by so few publications (*Endeavours after the Christian Life*, *The Rationale of Religious Inquiry*, a collection of his articles, and a few printed sermons) has puzzled those who knew how assiduous he was. My own belief is that Martineau had the habit of a student, that he was continually making discoveries and revising his views, and had

a dread of imprisoning either himself or others in any philosophical finality. I doubt if he was quite conscious of the authority carried by any quotation of his opinion, but he never entrenched himself, and if any one brought him a new view he never seemed to consider at all whether it was in conflict with some published statement of his own. As an instance of the persistence of this student habit into his old age I may mention an incident. A good many years ago I consulted Martineau about the age of the fourth gospel, and his opinion was that it was about the year 170. In 1894 I was conversing with him and he recurred to that answer—many years past—and said he had been much interested in some views set forth by the Rev. Charles Hargrove in a course of lectures at University Hall on the fourth gospel. Mr. Hargrove had given strong reasons for his belief that the fourth gospel was a joint work, and contained matter of different dates, the whole being of earlier composition than its publication. I had myself heard several of Mr. Hargrove's lectures (they have never been printed) and was much impressed by them. Martineau could not go out in the evenings and heard none of them, but no doubt received from the Rev. Philip Wicksteed (his successor in the chapel) the notes which I saw him writing. He (Martineau) had been re-reading the fourth gospel with this new light and was no longer ready to confirm his previous opinion. It struck me as very picturesque to see this scholar in his ninetieth year eager as in youth for more light, absolutely free from pride of opinion, and glad to receive instruction from one of his old pupils brought to him by another. For both Hargrove and Wicksteed had been students in Manchester New College under Martineau.

In 1880 Renan came to London to give the Hibbert lectures. They were given in his faultless French, and at their conclusion Martineau, who at seventy-five had the fire of early years, delivered to the French scholar an address (in English) admirable in taste and thought. We saw on that platform of St. George's Hall the ex-priest from France and the descendant of the Huguenot hunted out of France two centuries before, meeting eye to eye, clasping hands, and that too was picturesque. But that which especially impressed me was the literary relationship between the addresses of the two men. The unique charm of Martineau's style is its essentially French character. Its clearness, simplicity, ease, self-restraint, and its way of taking the reader into personal confidence, are French, and not found in any other contemporary English writer—unless it be Thackeray, who resided so long in Paris.

My reader may partly gather even from these brief notes what had gone through the centuries to the making of that almost ideal preacher to whom we used to listen. But on one Sunday after returning from the pulpit to the vestry, he fainted. Some doctor alarmed the family, and declared Martineau must resign the pulpit altogether. It was a medical blunder, and a disaster to himself. "It has been my life," he said mournfully to Miss Cobbe. And it was the life of others. The most important light-house on a perilous coast had fallen, never to be rebuilt, and the paths of voyage must all be changed. He might have gone on training the moral and intellectual leaders in London for twenty years longer, and we should still have been able to gather from his sermons, college lectures, and manuscripts the substance of the large works published since his retirement from the pulpit.

In reading the three large works of Martineau,—published after he was eighty,—the conviction is continually forced on me that his greatness is in those perceptions of truth which utter themselves in negations, and are all the more fervid and authentic because not accompanied by any general system. It is this quasi-empirical character of the sermon, appealing to the sentiment and the present intelligence without exciting the hesitations that confront generalisations, which give it an advantage over systematised theories. Behind every negation there is necessarily an affirmation; if one denies that $2+2=5$ it is in the strength of $2+2=4$; but when in things not mathematically certain the affirmations underlying negations are utilised for the construction of a philosophy or a theology they do not fit into each other like miraculously carved stones of Solomon's temple.

Martineau's *Types of Ethical Theory*, published in his eightieth year, his *Study of Religion*, published in his eighty-fifth year, and nearly half of the marvellous work of his eighty-sixth year, *The Seat of Authority in Religion*, are records of the intellectual pilgrimage of a learned thinker through the nineteenth century. As such they merit profound study. But in his constructive summing up he appears to me to have created rather than solved problems. Thus with regard to the existence of evil, he starts from the point of Paine and Palmer: natural evil is the result of the forces of material nature; matter was not created out of nothing, but always existed, and the deity is not responsible for the catastrophes wrought thereby. That was the old deism, but Martineau carries it into the theistic age, evolved out of pantheism, and shrinks from leaving such a large part of nature out of the divine government. "I think

of a cause as needing something else to work, i. e., some condition present with it." The term "Almighty" is "warranted only if it is content to cover *all the might there is*, and must not be understood to mean *mighty for absolutely all things*." (*Study*, Vol. I, pp. 400, 405.)

In one of these italicised phrases the deity is relieved of responsibility for the evils in nature but in the other it is re-imposed on him. If he has "all the might there is" his might is in earthquake, volcano, pestilence, despotism. Similar ambiguity appears in Martineau's treatment of moral evil. "Notwithstanding the supreme causality of God, it is rigorously true that only in a very restricted sense can he be held the author of moral evil. He is no doubt the source of its possibility." It is admitted that if God foreknows everything then everything is predetermined, otherwise he could not foreknow it. But Martineau holds that Omniscience has limited itself with regard to the details of human action, and provided "simply that no one of the open possibilities should remain in the dark and pass unreckoned, and that they should all, in their working out, be compatible with the ruling purposes of God, not defeating their aim, but only varying the track."

But does a supreme cause escape responsibility by blindfolding itself? It is the nature of these possibilities, all planned, that makes the moral dilemma of Theism, as much as predetermination of details. For instance that the worst people are able not only to wrong themselves but to cruelly and permanently injure others, the innocent and helpless.

At times Martineau appears to forget that there is no problem, strictly speaking, about evil at all, either physical or moral, except through the importation of the idea of a personal creative power responsible for both the moral order within us, and the un-moral order without us.

In his *apologia* for deity, in respect of the sin and suffering in the world, Martineau's subtle elaboration so restricts the divine responsibility for terrestrial affairs that one now and then pauses to ask the utility of such a rarefied and remote causality. A king summoned the sculptor to carve something pretty on his favorite bow; nothing could be more marvellous than the hunting-scene sculptured, but on the first attempt to shoot with it the bow broke to pieces. In Martineau's picture of the benefits of suffering, and the advantages of a moral freedom which involves the possibility of sin, he has hardly considered the fragile substance worked on. The struggle for life, he says, "accomplishes the maximum of good

with the minimum of evil." But the terrified and trembling mouse with which a cat plays before devouring it, presents a gratuitous torture. In fact, the neat generalisation breaks in Martineau's own hand when he comes to consider human anguish, for his veracity forces him to admit that on average human nature pain does not have an improving but a hardening effect; it is only the choice spirits that are ennobled by it. Thus it seems that to him that hath is given while from him that hath not is taken away even that which he hath,—his comfort,—without any moral compensation at all! But have the great souls been made greater by pain and sorrow? Shakespeare, Goethe, Franklin, Darwin, Emerson, Martineau himself, were prosperous and happy men. But apart from that—granting that pain and disease have all the best effects ever attributed to them—the real problem is not touched at all. The dilemma is that an omnipotent power, *ex hypothesi* unrestricted in its choice of means, should not have secured all best effects without the anguish and the sin. And is free agency so valuable as all that? It is just here Martineau's elaborately-carved theory breaks in his hands at last. "If," he says, concerning the benefits of suffering and the freedom to sin,—“If you ask me why they are not given us *gratis*, I hold my peace, till you have shown me whether that would have been better for anything but our ease; and whether, in case of such gift, the *thanks* would have followed.”

But what is the matter with “ease,” that it should be despised in a world weary and heavy laden, where all great energies are engaged in securing it in heart and home, for self, for the suffering, for the toil-driven millions? And what sort of deity would be one so egoistic as to weigh his craving for *thanks* against the happiness of his creatures?

Let me hasten to say that if Martineau's theology lays itself open to criticisms like these, it is because of his very untheological veracity of mind. He does not intentionally suppress facts or arguments that oppose him, though he may not have always kept quite abreast of the ethical philosophy of the last thirty years. And let me also warn those who have not read the large works to which I have referred, that brevity has compelled me to compress such references to an extent that leaves out of view the literally great value of the volumes. They contain finest estimates of the greatest philosophers and of their theories, from Plato to our own time, written in a style so lucid and charming that his fellow-pilgrims through the ages of thought are refreshed and sustained along paths usually found flinty and dusty. He may not carry us any nearer to

the philosophic goal, perhaps because the goal is in Utopia, but to us who remember the great preacher there are immortal pages that recall the wonderful sermons,—sermons that at times enabled me to understand that young Athenian who exclaimed in the grove, "O Socrates, to listen to these discourses of thine is in itself a sufficient end of existence!"

And after all it was these wonderful sermons, continued through fifty years, influencing the most cultured circle in London, which changed the intellectual and spiritual atmosphere not merely of the metropolis but of the seats of learning; insomuch that Martineau himself, honored at Oxford with special *éclat*, was a monumental evidence that the bigotry and intolerance amid which his ministry began had passed away.

In 1891 I visited my old friend Francis William Newman at Weston-super-Mare. He was travelling on towards his ninetieth year, but his faculties were bright, and he was deep in those recollections which were presently embodied in his publication concerning his brother, the Cardinal, then recently deceased. During the day we walked a good deal, and he gave me his memories of the sufferings he and others had to undergo, the humiliations and alienations, in their early pursuit of religious truth. After a description of the intolerant Oxford of his time Newman took down from a shelf in his library Martineau's *Seat of Authority in Religion* and read aloud the following:

"As I look back on the foregoing discussions, a conclusion is forced upon me on which I cannot dwell without pain and dismay; viz., that Christianity, as defined or understood in all the Churches which formulate it, has been mainly evolved from what is transient and perishable in its sources; from what is unhistorical in its traditions, mythological in its preconceptions, and misapprehended in the oracles of its prophets. From the fable of Eden to the imagination of the last trumpet, the whole story of the Divine order of the world is dislocated and deformed. The blight of birth-sin with its involuntary perdition; the scheme of expiatory redemption with its vicarious salvation; the incarnation, with its low postulates of the relation between God and man, and its unworkable doctrine of two natures in one person; the official transmission of grace through material elements in the keeping of a consecrated corporation; the second coming of Christ to summon the dead and part the sheep from the goats at the general judgment:—are all the growths of a mythical literature, or Messianic dreams, or Pharisaic theology, or sacramental superstition, or popular apotheosis. And so nearly do these vain imaginations personify the creeds that not a moral or spiritual element finds entrance there except 'the forgiveness of sins.' To consecrate and diffuse, under the name of 'Christianity,' a theory of the world's economy thus made up of illusions from obsolete stages of civilisation, immense resources, material and moral, are expended, with effect no less deplorable in the province of religion than would be, in that of science, hierarchies and missions for propagating the Ptolemaic astronomy, and

inculcating the rules of necromancy and exorcism. The spreading alienation of the intellectual classes of European society from Christendom, and the detention of the rest in their spiritual culture at a level not much above that of the Salvation Army, are social phenomena which ought to bring home a very solemn appeal to the conscience of stationary Churches. For their long arrear of debt to the intelligence of mankind they adroitly seek to make amends by elaborate beauty of ritual art. The apology soothes for a time,—but it will not last for ever."

While the aged Professor Newman read this he used a magnifying glass, and through it his eye glowed and almost flamed. Laying down the book he exclaimed, "And now the man that wrote that has been made Doctor of Laws by the University of Oxford!"

That honorary degree conferred on Martineau was the triumph of the Broad Church, but all the courage of his admiring friends, Professor Jowett and Dean Stanley, could not prevent the evasiveness of making the degree L.L.D. instead of Doctor of Divinity. It was proved, however, that along with the development of a Martineau outside the English Church there had been developed inside it a clergyman equally liberal. Such was Jowett. Martineau himself told me that when he went on to receive his degree he was the guest of Jowett, the other guests being George Henry Lewes and his wife, "George Eliot." One day, said Martineau, when I was alone with Professor Jowett, he said to me, "I am disappointed in George Eliot: She merely denies the authority of the Bible, and there stops!"

When the Rev. Stopford Brooke, the most brilliant preacher in the English Church in London, having adopted Unitarian views, announced his determination to leave the Church, Dean Stanley tried to dissuade him. Knowing the Dean's love of Martineau, Stopford Brooke said to him,—“Could James Martineau be made Archbishop of Canterbury?” “No,” answered the Dean. “Then,” said Stopford Brooke, “the Church is no place for me!”

This incident was related to me by Stopford Brooke himself, in a conversation in which I maintained that it was a mistake for clergymen who had entered the Church honestly to resign on becoming un-orthodox. They ought not so to relieve the Church of its responsibilities, but to proclaim their heresy boldly and compel the Church either to expel them or to admit that its pulpit is open to heretics. Were every clergyman who becomes un-orthodox to force on the national Church the alternatives of a prosecution for heresy or its toleration, the religious genius of England which steadily abandons its Church would return to it, the recital of its creeds be made optional, and an evolution follow that must either

fossilise the Canterbury throne or fill it with some spiritual descendant of James Martineau.

Perhaps it is the most significant thing connected with Martineau's death that the orthodox clergy and ministers should be eagerly claiming him as their own. He was less orthodox than the men sent to prison in the earlier part of the century, but he held to a certain species of Christianity: he clung to the last to a Christ who was the perfect man, and the revelation of the Father by his life and spirit. It was a sort of evolution of the fourth-gospel Christ, as he had quite given up the miracle-worker of the synoptics. That after all his negations of Bible authority and of the creeds the orthodox should claim him indicates their sore need of an eminent scholar, whose opinion is not merely professional, to advocate even a relic of Christianity. That a great and learned man, unbiassed by position or salary, should believe that Christ was in some special sense a providential man, and the typical man, has become so rare a phenomenon that all the orthodox sects clutch at it, rejoice over it, and are thus really calling to the Unitarians, "Give us of your oil, for our lamps have gone out!"

THE INTERNATIONAL CONGRESS OF THE HISTORY OF RELIGIONS,

PARIS, SEPTEMBER 3—9, 1900.

BY PROF. JEAN RÉVILLE.

THE Universal Exposition at Paris is to be accompanied by a large number of congresses devoted to the interests of all the various sciences and industries which modern civilisation has produced. From milling to philosophy every branch of human endeavor will here be passed in review. Just as the exhibition of the products of industry is to be so arranged that the visitor shall be able to follow the actual development of each species of production or manufacture from its crudest beginnings to its most recent stage of perfection, so provisions have also been made for the installation of a series of scientific and technical reunions for enabling the specialists of these branches of human activity to exhibit to the world in epitomised form the sum-total of the knowledge and skill which has been accumulated in their particular domains. Side by side with the mechanical arts and industries of the nineteenth century now just drawing to a close, will be exhibited also the progress that has been accomplished by the mind in the various spheres of intellectual and spiritual endeavor proper, at the moment when humanity is entering upon the twentieth century.

Now it was indispensable that the studies concerned with the subject of religion should also be represented in this encyclopædic exhibit. Religion has played too momentous a rôle in the life of humanity and has always exerted too powerful an influence upon human society to be passed over in silence. But on the one hand religion is not an affair readily admitting of exhibition, and on the other hand the rules of the Exposition formally excluded everything that savored in the slightest of politics or creed. A number

of notable representatives of French theology and religious philosophy had long contemplated the convening at Paris in 1900 of a parliament of religions similar to that which was held with such great success and *éclat* at the World's Exposition at Chicago; and since the year 1896, when the Rev. John Henry Barrows was passing through Paris, several meetings have been held with this purpose in view. But no such convention made up of representatives of all the churches and religious confessions was ever admitted among the official congresses of the Exposition.

Doubtless the promoters of this project would enthusiastically have accepted the alternative plan of dispensing altogether with the official sanction of the Exposition and of organising their religious congresses upon an entirely independent footing; but a second and far more formidable obstacle definitively frustrated their good intentions on this point. It was the formal refusal of the Catholic church to take any part whatever in a conference of such a character. This was the really deciding factor. In a country like France where the great majority of the people are, at least in name, professing Roman Catholics, a parliament of religions in which no authorised representatives of Catholicism took part would be doomed to failure from the start. It is a remarkable fact that the same Catholic church which, in America, consented to take a leading part in the Parliament of Religions at Chicago, should obstinately refuse to do so in Europe, where it is in no wise constrained to make the same concessions to the spirit of democracy.

Seeing that a second Parliament of Religions was altogether out of the question at Paris in 1900, the scholars who were occupied more particularly with the scientific investigation of religion believed that it was incumbent upon them to assure to religious studies their rightful place in the great concert of congresses of the Universal Exposition, by providing for the meeting of an International Congress of the History of Religions, in which the problem of the historical values of the different past and present religions should be attacked from its scientific side, and in which a special effort should be made to make them thoroughly understood, to clear up their origins, to elucidate the obscure points of their history, and to review their internal evolution as well as the development of their relations with civilisation in general. And after all, is not this the characteristically modern method (that is to say, the scientific method) of reaching an adequate appreciation of the different religions, namely, to study them by the same method of critical observation which we employ for reaching an objective knowledge of

any of the other manifestations of the spiritual activity of humanity? Is not the science of *religions* the real modern theology, and that destined to take the place of the ancient theology, which was limited to Judaism and Christianity and founded upon the supernatural? Has it not been its good fortune to make more and more important contributions every day to our knowledge of past humanity, and to throw a light of steadily increasing brilliancy upon moral and social problems?

These forcible considerations did not fail to carry weight with the General Committee empowered to institute the congresses of the Universal Exposition; and the professors of the Department of Religious Sciences in the École des Hautes Études at the Sorbonne were accordingly authorised to form a committee of organisation for an International Congress of the History of Religions under the presidency of M. Albert Réville, professor of the history of religions in the Collège de France. They soon obtained the concurrence of a large number of prominent persons of the Parisian scientific world, without distinction of religious creed. We confine ourselves to mentioning the names of M. Maspero, the celebrated Egyptologist; M. Oppert, the authority on Assyriology; M. Philippe Berger, the successor of Renan at the Collège de France; M. Sabatier, Dean of the Faculty of Protestant Theology in Paris; M. Carra de Vaux, professor in the Catholic Institute of Paris; M. Anatole Leroy-Beaulieu, member of the Institute; M. Guimet, founder of the Museum of Religion in Paris; M. Senart, the celebrated Indianist; M. Michel Bréal, etc., etc.

To bring order into the labors of the Congress, the committee has established eight sections for the carrying out of its work: (1) Religions of non-civilised peoples and of pre-Columbian America; (2) Religions of the extreme Orient (China, Japan, Indo-China, the Mongols and the Finns); (3) Religions of Egypt; (4) Semitic religions (Assyro-Chaldæan, Judaism, Islamism); (5) Religions of India and of Persia; (6) Religions of Greece and Rome; (7) Religions of the Germans, the Celts and the Slavs, and the Pre-historical Archæology of Europe; (8) History of Christianity. Which last section, by reason of its importance, is to be divided into three sub-sections, viz., (a) The Early Centuries, (b) The Middle Ages, and (c) Modern Times.

It has been decided that the Congress shall meet at Paris from the third to the ninth of September, 1900. The membership fee has been fixed at ten francs. Applications should be sent to the secretaries, M. Jean Réville and M. Léon Marillier, at the Sorbonne,

Paris; and drafts should be made payable to M. Philippe Berger, treasurer, 3 Quai Voltaire, Paris.

According to the rules of the Exposition, the committee of organisation could be composed only of French citizens; but inasmuch as the question was of an *international* congress to which interested persons in all countries had been courteously invited, and where the English, German, Italian and Latin languages were admitted on the same footing with the French, the committee took pains to appeal to the co-operation of foreign scholars by requesting them to accept the honorary title of "Correspondents of the Congress." MM. Tiele, Chantepie de la Saussaye, Krumbacher, Oldenberg, Max Müller, Guidi, Goblet d'Alviella, Cust, etc., etc., have graciously promised their co-operation and also commended the step taken by their colleagues in Paris. In the United States the committee were fortunate in procuring the support of the Hon. C. C. Bonney and Dr. John Henry Barrows, Dr. Goodspeed and Dr. Paul Carus, that is to say, of the organisers and continuers of the World's Parliament of Religions in Chicago. In addition, Drs. Toy, Haupt, Harris (Commissioner of the Bureau of Education of the United States), Harper, Lanman, Jackson, Jastrow, and Gottheil have responded favorably to the appeal, promising either to take part personally in its meetings, or to promote the interests of the Congress among their compatriots.

Nearly two hundred scholars or students of religious history have already become members, but this number will certainly be more than doubled before the month of September. The facilities of transportation, the reduction of the price of tickets, which has been especially arranged for by the Exposition, will doubtless encourage many persons to make the voyage to Paris to see the Exposition and to take part in the Congresses. Some seem to fear that, in view of the enormous influx of visitors, difficulty will be experienced in finding accommodations for a stay in Paris. But that danger is to be less feared in Paris than in any other place. In a city which with its immediate suburbs numbers three millions of inhabitants, and which normally receives more visiting strangers than any other city in the world, there exist resources which are almost unlimited for the quartering of transitory guests. Besides, if notified in advance, the committee of organisation of the Congress obligates itself to procure accommodations for those who cannot find them themselves.

The desire of the organisers of the Congress is that the initiative taken by them in connexion with the present Exposition of

1900 shall be the point of departure of a regular series of congresses of the same character to meet every three, four, or five years for the purpose of giving to the general history of religions the stimulus necessary to assure to it for all time the place which it should rightfully occupy in our modern instruction; of aiding in some way to disseminate the results of its researches over wider and wider spheres of influence, and to give to scholars of all nationalities who have devoted their time and powers to labors in this field an opportunity of becoming acquainted with one another and of consolidating their common studies. This will be the principal service of the Congress.

In the United States, where the history of religions has taken in late years so happy a development, the committee of the Congress hopes to meet with favorable recognition. It appeals to the co-operation of all those who appreciate the utility, not only the scientific but also the moral utility, of the diffusion of the science of religions, and asks that they accord to their friends in Europe the support of their activity and their sympathy. We hope that many of them will be able to take an active part in the Congress, and that those even who are prevented from visiting Europe at this time will at least be able to offer their moral collaboration by inscribing their names as members.

JOHN BERNARD STALLO.

AMERICAN CITIZEN, JURIST, AND PHILOSOPHER.

BY THOMAS J. MCCORMACK.

ON January sixth last there died at Florence, Italy, in the person of John Bernard Stallo, a distinctive type of our best American citizen,—a man who despite signal achievements in professional and public life and in the domain of philosophic thought has, either from his own inherent modesty or from our inveterate national lack of appreciation for such talents, not yet attained to the reputation which is his due.

John Bernard Stallo passed the years of his early manhood, as well as those of his maturest activity, in America; and we may, without disparaging in the least either the impulse which his sound youthful education in Germany gave him, or the extraordinary advantages which his acquaintance with the German language and with German intellectual traditions lent him over most of his contemporaries, still characterise him as essentially a product of American conditions. At seventeen, a poor teacher in a private school in Cincinnati; at twenty-one, professor of mathematics, physics and chemistry in St. John's College, Fordham; at twenty-four a member of the bar of Cincinnati, at thirty-one a Judge of the Court of Common Pleas of Hamilton County, Ohio: he successively rose to positions of increasing eminence in his city and country, culminating in 1885 in his appointment by President Cleveland as United States Minister to Italy. In addition to this, he is the author of the profoundest and most original work in the philosophy of science that has appeared in this country,—a work which is on a par with anything that has been produced in Europe, and which showed a firm and independent grasp of what are now acknowledged principles of scientific criticism at a time when these were not in the possession of the majority of scientists. And all this varied activity

is rounded off by the picture of the life of a man of sterling culture wielding an unobtrusive but persistent influence for the social and intellectual good of the community of which he was a part, and which has since borne a distinctive impress of that influence.

John B. Stallo was born in Sierhausen, Oldenburg, Germany on March 16, 1823. He came of sturdy Frisian stock, which had produced a long line of schoolmasters, and himself received at Vechta his official education for that career. He was precocious and at sixteen was sufficiently conversant with elementary mathematics, the ancient and the modern languages, to fit him for entrance into the University. Waiving this career, he emigrated in 1839 to America, and settled in Cincinnati, where he found occupation as a teacher and published the first offspring of his genius in the shape of a spelling and reading book of the German language, afterwards characterised by him as his most brilliant literary success. We soon find him at St. John's College, Fordham, where he first was a teacher of German and the classics and in 1843 was made professor of mathematics, physics, and chemistry, a position which he held until 1847, when he returned to Cincinnati and studied law, being admitted to the bar in 1849.

It was in this period, by his comprehensive studies in mathematics and the sciences, that he laid the foundation of his philosophical career, to which he remained true amid all the preoccupations of his professional life. Even here, through the unaided insight of his natural genius, it was the works of the great masters only to which his energies were directed, and to this rare economy and selective judgment which he exercised in all his labors, are in our opinion due not only the great range and variety of his humanistic accomplishments but also the historical breadth and critical acumen which so eminently distinguished his philosophical researches.

His first philosophical work, which, like Hume, he subsequently repudiated as "one of the unavoidable disorders of intellectual infancy," and which will doubtless also have the same fate as Hume's philosophical firstling, of being regarded by subsequent historians of American philosophy as the true and original expression of his views, was a book entitled *General Principles of the Philosophy of Nature with an Outline of its Recent Developments among the Germans, embracing the Philosophical Systems of Schelling & Hegel, and Oken's System of Nature*, published in Boston in 1848. Be the merit of this work what it may, it did not altogether fail of an influence upon American thought; there were here recorded a digest of the views of many German philosophers who were at

that time a sealed book to most American readers, and even that part of it of which its author by his own implicit expression was "ashamed," may have possessed an import of which he was totally unaware. To his great philosophical work, *The Concepts and Theories of Modern Physics*, the fruit of a life-time of thought, we shall refer in more detail at the end of this notice.

We now turn to his career as a citizen, professional man, and publicist, proper, which exhibits traits that are more likely to endear him to our national consciousness. His life in this regard has been too well characterised by the late Ex-Governor Körner, in his book *The German Element in America*, to require much supererogatory comment on our part. Ex Governor Körner, too, was a signal embodiment of German traditions and European culture in the West; Judge Stallo and he were congenial spirits; both were chosen as types of our so-called German-American citizens for representing America at foreign Courts; and for an appreciation of this phase of Stallo's career, we can do no better than to call the attention of our readers to Körner's work, which is distinguished alike by its humanitarian breadth and by its literary qualities. "Judge" Stallo, for such he became in 1853, enjoyed for upwards of thirty years a very lucrative law-practice in Cincinnati, and his home was one of the social, intellectual and artistic centers of that city. He was a lover of music and belles-lettres, and a wide reader of history and political science. He rarely entered the arena of practical politics, but in great national and local crises his pen and his voice were always enlisted in the service of high, liberal, and progressive ideals. It was thus in 1865, thus in 1876, in 1880, and in 1892; and thus with the tariff, civil service, and political reform generally, on many other occasions. We have in his latest work, *Reden, Abhandlungen und Briefe* (New York: E. Steiger & Co., 1893) a charming picture of this side of his career.

The essay on Thomas Jefferson in this volume breathes an air of unwavering confidence in the future of our country, at a time when many were despondent (1855); and it also exhibits a grasp and appreciation of our political institutions that was, and even still is, rare. The same breadth and profundity marked his utterances on such questions as the Future of the English Language in America, the Reading of the Bible in the Public Schools, Know-Nothingism in the Public Schools, and Instruction in German in Public Schools. On all these burning issues, Stallo appealed to the reason of his hearers, not to their prejudices, and so lifted his discussion to the planes of national dignity and the intrinsic

forcefulness of truth. So confident was he of the cultural mission of German thought and sentiment in the United States that the steadily increasing predominance of the English language never so much as even threatened that mission in his estimation. He referred to the famous utterance, "I had rather make a nation's songs than its laws;" and added, "Whatever language our children shall speak in the centuries to come, they and the descendants of the Anglo-Americans shall sing the melodies of our fathers, the light of German science shall beam from their eyes, and the glow of German sentiment incarnadine their cheeks The lyre is a more glorious symbol of national happiness than the steam-engine and it is as magnificent a calling to keep the hearts of a free people responsive to the quickening lessons of genuine poetry as it is to gather and to hoard the golden fruits of industry."

This breadth and independence of view marked all his actions and was the source of his great influence. He was never led by fixed social opinions, and changed his politics several times in life, in conformity with his own purely rational convictions. He was the champion of freedom of thought and action in all its forms, and his main juridic laurels were won in connexion with cases where liberal issues were concerned. This trait, says a writer in the *Popular Science Monthly* for February 1889, "was strikingly manifested in his presiding over a public meeting addressed by Wendell Phillips, when the orator was made a mark for missiles, and Judge Stallo stood by his side and bore the brunt of the assault with him. This was in 1862, when Mr. Phillips was invited to speak in Cincinnati in favor of emancipation. A bitter prejudice existed against him because he had been a disunionist. Judge Stallo had been invited to introduce him, but declined, because, his sympathies never having been with Mr. Phillips, he was not the proper man to perform that office. But when he was informed that other men whom he had mentioned as more suitable had declined, because they were afraid of a mob, he consented, saying, 'That is enough, gentlemen—I will be there.' Mr. Phillips, after being introduced, was at once assailed with a shower of disagreeable and dangerous missiles. One of them hit Judge Stallo. 'During the turmoil and uproar,' said Judge Stallo, telling the story several years afterward, 'Mrs. Stallo, with Mrs. Schneider, sat behind a fellow who had risen and aimed a big stone at the speaker. As he threw his hand back to fire the stone, Mrs. Stallo, who entered heart and soul into the spirit of the hour, and had no thought but to stand by her friends in the stormy crisis, reached over and hit the fellow's wrist

a hard blow, making him drop the stone and howl with pain. He looked around to see his assailant, and Mrs. Stallo was up and ready for him, but gentlemen hastened to her side, and the fellow moved away.'"

Judge Stallo took a pronounced stand in the political movement of 1884, and was sent in the following year as United States Minister to the Court of Rome. After the expiration of his official term, he took up his residence in Florence. Through the kindness of his daughter Miss Hulda Stallo we are enabled to present to our readers photographs of his villa and of the library in which he pur-



VILLA ROMANA. JUDGE STALLO'S RESIDENCE IN FLORENCE, ITALY.

sued his studies in his declining years. Surrounded with the art, the learning, and the culture, which had been the dream of his youth, and in correspondence with eminent thinkers of Europe on topics that had formed the subject of his philosophical contemplations, his life drew fittingly to a close in an ideal atmosphere and with ideal tasks done. He left a widow and two children, Miss Hulda Stallo, of Florence, Italy, and Mr. Edmund K. Stallo, of Cincinnati. His great work *The Concepts and Theories of Modern Physics*¹ constitutes his most enduring title to fame and we shall therefore devote a few brief paragraphs to its characterisation.

¹ Second edition, New York, Appleton and Co., 1884.

Judge Stallo did not claim for his work the significance of "a new theory of the universe, a novel system of philosophy." "I



LIBRARY OF JUDGE STALLO IN THE VILLA ROMANA.

have undertaken," he says, "not to solve all or any of the problems of cognition, but simply to show that some of them are in need of being stated anew so as to be rationalised, if not deepened

The utter anarchy which notoriously prevails in the discussion of ultimate scientific questions, so called, indicates that a determination of the proper attitude of scientific inquiry toward its objects is the most pressing intellectual need of our time, as it is an indispensable prerequisite of real intellectual progress at all times."

The book is thus on the face of it a contribution to epistemology, or the theory of cognition, as based upon a careful study of the physical sciences. It controverts the belief that there has been a total breach of continuity in the philosophy of science, from mediæval times to the present day, that "modern physical science has made its escape from the cloudy regions of metaphysical speculation, discarded its methods, and emancipated itself from the control of its fundamental assumptions." On the contrary, it holds that "the prevailing misconceptions in regard to the true logical and psychological premises of science are prolific of errors, whose reaction upon the character and tendencies of modern thought becomes more apparent from day to day."

But while a book of philosophy, it is not a book of "metaphysics," in the old sense. Indeed, "its tendency is throughout to eliminate from science its latent metaphysical elements, to *foster* and not to *repress* the spirit of experimental investigation, and to accredit instead of discrediting the great endeavor of scientific research to gain a sure foothold on solid empirical ground, where the real data of experience may be reproduced without ontological prepossessions."

It begins with an attack upon that conception of modern physical science which "aims at a mechanical interpretation of the universe," and considers successively both the history and the principles of the mechanical philosophy in all the forms of its expression: the doctrines of mass, inertia, energy, the atomic constitution of matter, the kinetic theory of gases, etc., interpolates several chapters on the development of a theory of knowledge; and ends with the critical application of the principles of that theory to the metaphysical assumptions involved in the mechanical philosophy and the mathematics of the metageometricians.

One is astonished in reading this work, not only that so vast a range of scientific and philosophical knowledge could be covered by a man actively and continuously engaged in the profession of the law, but also that so acute and original critical powers could be developed in an atmosphere so uncongenial to this species of inquiries. While Judge Stallo's book is well known in America, it has not had the notice it deserves in Europe. It has much in com-

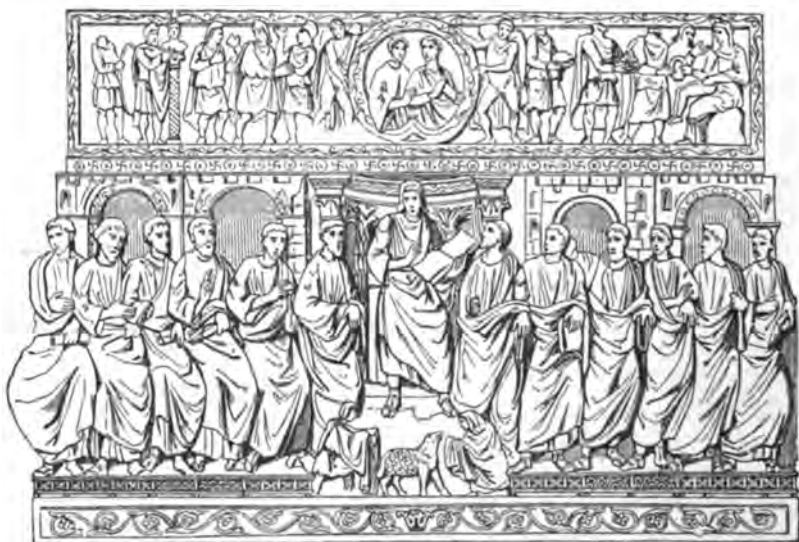
mon with recent developments of thought there, and the coincidences of its general points of view with Professor Mach's philosophy are especially remarkable, as each system was developed independently of the other, and each thus offers a welcome corroboration of the other. It is, in fine, safe to say not only that the influence of Stallo's work will be a permanent one, but that it will also steadily increase, despite the fact that many of the doctrines it attacks are being gradually abandoned.

Attention should be called, in closing, to the philosophical essays which Judge Stallo wrote in German, and which have been published in his collection of *Reden, Abhandlungen*, etc., mentioned above. These essays, which treat of such subjects as *Materialism* and *The Fundamental Notions of Physical Science*, are marked by the same qualities of thought as the author's principal work, but they are written in a lighter vein and are pervaded with a humor that will ensure them a more permanent place in the affections of the German readers of America, and so render accessible to them also the more important side of the intellectual character of this unique figure of our national life.

SIGNETS, BADGES, AND MEDALS.*

BY THE EDITOR.

CHRISTIANITY did not take possession of the hearts of the people at once and exclusively. It was but one new religion among several others that had been imported from the Orient,



THE SARCOPHAGUS IN ST. AMBROGIO, MILANO.¹

Christ with the twelve Apostles. While the cross is absent, swastikas and solar discs are employed as ornaments.

commanding the general interest and rousing the hopes of seekers after truth. Therefore we must not be surprised to find many Christian sarcophagi and graves in the catacombs decked with symbols that would have been spurned in later centuries as Pagan.

¹ From Lübke's *Kunstgesch.*, p. 266.

Many of the beautiful intaglios and signets that have been found all over the Roman Empire, belong to the second and third century of our era, and it seems that they served partly as amulets, partly as signs of identification, or tickets of admission to the celebration of mysteries. A greater number of them show symbols of the cult of Abraxas, others of Mithras; many of them are Gnostic and some are Christian.

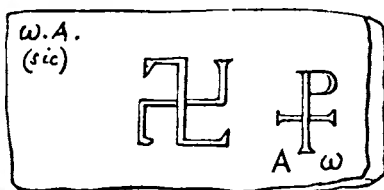
The Christians were upon the whole opposed to pictorial representations of any kind, but considering the wide-spread custom, the churchfathers yielded to the demand, allowing, however, only a limited number of symbols which appealed to Christian sentiments.

Clement of Alexandria, speaking of worldly ornaments, says that "there are circumstances in which the strictness [of Christian discipline] may be relaxed." He says:

"If it is necessary for us, while engaged in public business, or discharging other avocations in the country, and often away from our wives, to seal anything for the sake of safety, He (the Logos) allows us a signet for this purpose only. Other finger-rings are to be cast off, since, according to the Scripture, 'instruction is a golden ornament for a wise man.'"¹

"And let our seals be either a dove, or a fish, or a ship scudding before the wind, or a musical lyre, which Polycrates used, or a ship's anchor, which Seleucus got engraved as a device; and if there be one fishing, he will remember the apostle, and the children drawn out of the water. For we are not to delineate the faces of idols, we who are prohibited to cleave to them; nor a sword, nor a bow, following as we do, peace; nor drinking-cups, being temperate."

Other symbols frequently used in the catacombs by Christians



CHRISTIAN SYMBOLS IN THE CALLISTINE CATACOMBS.¹

(The Christogram, the Swastika, and the ΑΩ, the latter in two forms.)



THE GRAVE DIGGER DIOGENES. NO CROSS BUT SWASTIKAS.

Picture on his tomb in the catacombs of S. Domitilla. (After Boldetti, reproduced from F. X. Kraus, *Gesch. d. ch. K.*, I., p. 170.)

¹ Smith and Cheetham, *Dict. of Chr. Ant.*, I., p. 497.

² Eccles. xxi. 24.

are palm-branches, the phoenix, the peacock, the crown and the lamp. In addition scenes of martyrdom are depicted. The Christian character of many gems is assured through the monogram of the Initials of Christ ($\chi\rho$), a combination of χ (X) and ρ (P). The name of the owner is frequently added to the symbol.

It is sometimes difficult to determine whether an intaglio is Christian or Pagan, for we must bear in mind that at the beginning



MARTYRDOM
GEM.¹



CHRISTIAN GEM.
With name of
owner. (King).



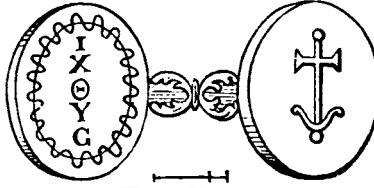
HAND WITH
PALM.
British Museum.

of the Christian era several religious movements took place within the limits of the Roman Empire. The old faith suffered decay everywhere and the new ideas produced a state of mental fermentation which finally led to the destruction of the classical civilisation.

The most powerful movements of the age are the Syrian Gnosticism, the Egyptian Abraxas worship and the Persian Mithras



THE PHOENIX AS A
SYMBOL OF IM-
MORTALITY.²



CHRISTIAN GEM.
IXOYC and anchor (Smith and
Cheetham, p. 714).



ANCHOR AND
DOLPHIN.
British Museum.³

religion. All of them resemble Christianity in almost all essential features, especially in the spirituality of God, the need of salvation from sin and corporeal existence, and the hope of an immortality of

¹ This gem (a Christian New Year's present) represents the death of a martyr. The letters ANFT mean *anthoni novum felicem tibi*. Smith and Cheetham.

² From Münster.

³ The inscription *επιτυχαρου* means "succeed!"

the soul in one form or other. It is difficult to distinguish them, for the character of the age is syncretism, a mixture of thought producing everywhere entanglements and identifications of old and



CHRISTIAN GEM.
With name of
owner.



THE GOOD SHEPHERD ¹



SHIP GEM. ²



CHRISTIAN WORSHIP AND MARTYRDOM.
(A medal reproduced from Kraus, *Gesch. d. Ch. K.*)



SYNCRETISM ON A GEM. ³



CHRIST STRUGGLING
WITH THE EVIL ONE. ⁴



IAΩ GEM (KING).

new deities, of Greek and Eastern conceptions until it becomes impossible to classify them properly.

Perhaps the greatest number of intaglios are Abraxas gems, so called after the inscription which is repeated upon many of them.

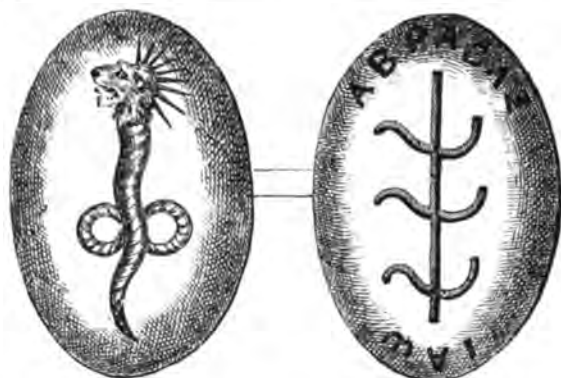
¹ Kraus, *Gesch. d. ch. K.*, p. 94.

² Smith and Cheetham, *l.*, p. 715.

³ In the possession of the Rev. Churchill Babington.

⁴ Didron, *lc.*, II., p. 201.

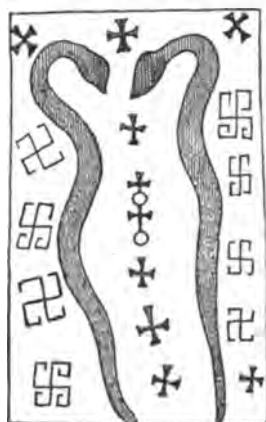
Abraxas is an Egyptian word derived from *abrak* which happens to be mentioned in the Old Testament and means "bow the knee" or "worship."¹ Abraxas is the Adorable One and is the common cognomen of God.



ABRAXAS GEM WITH THE AGATHODÆMON.²

The proper name of God on the Abraxas gems is Iao, which is always written IAO in exactly the same form of letters as the Christian IOU, the I and the O of the Revelation of St. John the Divine, which is so frequently represented in the catacombs.

The Abraxas gems bear symbolic representations of Iao Abraxas, in the shape of a cock-headed man with serpent feet, in one hand a shield in the other a whip. We must remember that the cock was the sacred animal of Æsculapius, the God of healing, and Socrates requested his friends to sacrifice a cock to Æsculapius after his death because his soul was now freed from the disease of materiality due to its contamination by the body.



SLAB WITH SERAPHIM.

The serpent is regarded as a sacred animal in the Orient. The seraphim³ of the Hebrew are the guardian spirits that stand in the presence of Yahveh. The Syrian Gnostics speak of the serpent as the symbol of wisdom, and in Egypt winged serpents are frequently mentioned in religious texts. The concurrence of so many similar traditions led to the idea rep-

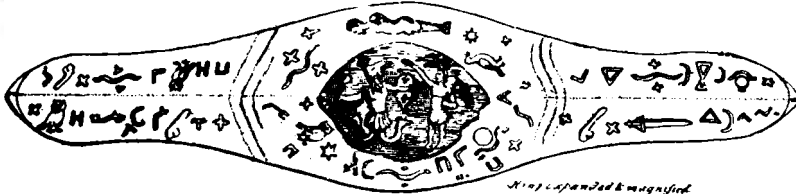
¹ Gen. xli. 43.

² Walsh, *op. cit.*, No. 2.

³ Seraphim is the plural of Seraph which means "snake."

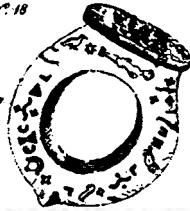
representing the Agathodæmon, the deity of goodness, in the shape of a serpent with a lion's head.

The Agathodæmon played an important part in the Abraxas mysteries and is frequently represented above the sacred cista from which the priest at the celebration of festivals made his sudden appearance.



No. 18

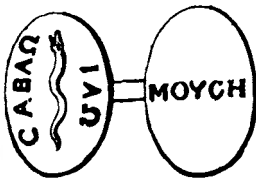
Size of the Ring



Cornelian

A SEALING-RING OF IAO WORSHIP WITH GNOSTIC SYMBOLS OF DOUBTFUL SIGNIFICANCE.¹

The symbol of the Agathodæmon is a treble cross whose transom beams are gently curved. Treble crosses are quite frequent in Christian art, but there is no means of finding out whether there is



GNOSTIC GEM WITH SERPENT.

Bearing the names Iao, Sabaoth, and Moses.²



AGATHODÆMON.³

any connexion between the Christian treble cross and the emblem of the Egyptian Agathodæmon.

¹ R. Walsh, *Anc. Medals, Coins, and Gems*, p. 69. "This remarkable ring was brought from Egypt by a soldier and is now in the possession of Dr. Adam Clarke. It shows in the stone which is a cornelian, the god Abraxas and another figure which I take to be his priest in the attitude of worship, extending in his right hand either a sacrificial cake or some other object for the sake of consecration. In his left hand he wears a flagellum, on his head a crown. The symbols that cover the ring itself are emblems of reproduction (priapi and phalli), serpents between equilateral crosses, owls, solar disks, stars, triangles, and signs of doubtful significance."

² Walsh, No. 4.

³ From C. W. King.

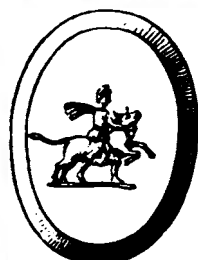
Almost as frequent as the Abraxas gems are the intaglios, signets, and badges used by the worshippers of Mithras. There is an



The sun-god holding in his hand the globe on which the four quarters are indicated.¹



Mithras slaying the bull. On the reverse Cupid and Psyche (broken).²

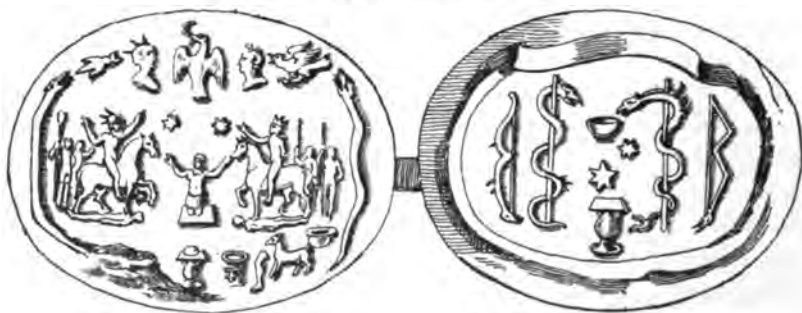


Mithras leading off the bull. Reverse of the gem with the sun-god

MITHRAISTIC GEMS. (Green jasper.)



(After Chiflet, reproduced from C. W. King.)



(Reproduced from Walsh.)

MITHRAISTIC CAMEOS.

Showing Mithras born from the rocks between the Dioscuri, surrounded by Mithraistic symbols, among them the cup and bread of the Eucharist.

unlimited variety of them extant, and yet they all bear a certain resemblance which renders it easy to recognise them.

¹ The inscription reads ΑΒΑΑΝΗΘΗΝΑΑΒΑ, and underneath ΤΥΕΕΥΙ.

² The exergue reads: CNEIXAPOHHE, and the bevelled margin NBAΦENEMOY NOCIA-APIKFIΦAAEYE, underneath IOE. (After Cumont.)

An interesting intaglio of the Mithras worship shows Mithras standing in the center between the two Dioscuri, both holding a kind of trident (perhaps a symbol of life and light) one having the prongs up, the other down. Above Mithras, the raven, the moon, Helios as the sun-god, and perhaps Hermes. Two serpents serve as supporters in a coat of arms on either side. Underneath Mithraic symbols, among which the table with the sacred bread and the cup of the Eucharist are prominently visible.

A fine intaglio of probably Gnostic significance exhibits the trinity of strength, love and wisdom symbolised in a lion, a dove with the olive-branch on a sheaf, and a serpent. The dove with the olive-branch is the emblem of Astarte, and the sheaf of wheat indicates the fulness of life and reproduction.

Mr. Clark has discovered in Larneca, Cyprus, a number of gems representing doves with olive-branches. They are accom-



A SHIP SYMBOLISING
THE CHURCH.



A CHRISTIAN GEM WITH
SERPENT.



A GNOSTIC GEM.

panied by illegible Phœnician characters (*Travels*, II, p. 326). The same device appears on coins of the city of Eryx, Sicily. Bishop Münster¹ is opposed to treating them as Christian; the birds may be ravens or some other species. Not even the olive-branch is a sure sign of their Christian origin. "It is certain," says the Bishop, "that many gems with doves, which exist in great numbers and are all believed to be Christian, were designed to serve as signets for worshippers of the Queen of Heaven."

The serpent, that important emblem of Syrian Gnostics, the Serapis cult and Mithras worship, occurs in Christian symbols only as the representative of evil, and yet there are Christian gems where the snake is represented in attitudes which exclude the theory of its being a messenger of Satan. A Christian gem, showing the Christa T cross between the A and ω, represents the snake between

¹ Münster, *Sinnbilder*, p. 109.

two doves. Observe that the snake is not crushed by the cross, as we find it in later Christian devices, but is in a peaceful communion with the doves. We must add that possibly the snake here takes



THE A AND Ω IN THE CHRISTOGRAM ON SYRIAN HOUSE-FRONTS.

the place of the fish, as the stone-cutter for artistic reasons may have preferred a twining serpent to the unaccommodating fish.



MEDAL STRUCK IN HONOR OF SERAPIS AND ANUBIS.¹

Martyr scenes are frequently represented on medals, but the probability is that all productions of this class belong to a later period.

¹ Walsh, No. 28.

Christians loved to represent Christ as a fish on the rood, but even here Pagan influences made themselves felt. The fish is one of the most ancient religious symbols, dating back to the age of the old Akkadians and Assyrians; but Christians adopted it on account of the word ΙΧΘΥΣ meaning fish in Greek, the letters of which form the acrostic Ἰησοῦς Χριστὸς Θεοῦ Υἱὸς Σωτὴρ, i. e., Jesus Christ God's Son, the Saviour. But the Christian stone-cutters bearing in mind the Greek myth of the dolphin who saved Arion frequently replaced the fish by a dolphin. Indeed there are instances in which the serpent takes the place of the fish.

The idea of seeing in the fish a symbol of Christ is an after-thought which came to Christians when they found the fish symbolising the idea of God the Saviour in the mythologies of their gentile neighbors.

The ancient Babylonians believed in a Triad of Gods, Anu, Bel and Ea. Anu is God the Highest and Greatest, but Bel and Ea are treated as his equals. Anu's symbol is the equilateral cross bearing a remarkable resemblance to its Maltese form. While Anu is the Creator in general, Bel is the deity through whose exertion the world is shaped. He struggles with Tiamat, gives shape to heaven and earth, creates man from his own head and is the saviour from evil. Ea is the Babylonian Okeanos. He is the Lord of the waters and of profundity. He is wise and just. He makes the law and saves the Babylonian Noah from the deluge by teaching him how to build a vessel. He is praised in a hymn as riding, like the Egyptian Ra, in the sunboat over the aerial ocean of heaven. He is the protector of art and science, the giver of oracles, the adviser in emergency, the savior who in the beginning of civilisation came out from the deep, clothed in the skin of a fish, to teach people law and order.²

There can scarcely be any doubt that Ea is the Philistine Dagon whose worship is repeatedly mentioned in the Old Testament.³



THE GOD EA CLOTHED IN
THE SKIN OF A FISH.¹

¹ Assyrian bas-relief in the British Museum.

² Tiele, *Bab. Ass. Gesch.*, pp. 516-523.

³ 1 Sam. v, 2 ff. 1 Chron. x, 10. Judges xvi, 23. 1 Marc. x, 83 ff. xi, 4.

To the Egyptians the fish was also a sacred symbol, being a symbol of Hat Hor, the holy mother of Har-pa-Khrad, God the child, the rejuvenated son, the revenger and saviour.

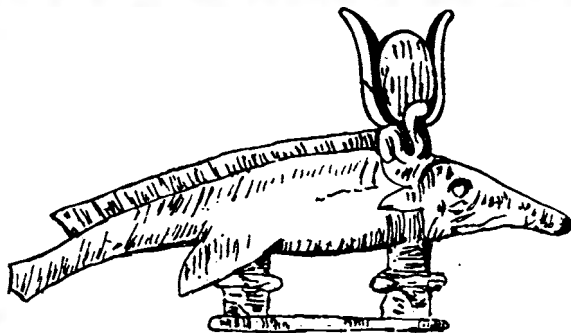
The dolphin was sacred to Dionysos, and as Christ was in many respects identified with this deity, the suffering, dying and resurrected God of the vine, it is but natural that Christian fishes should be frequently pictured as dolphins.

Tertullian adopts the fish as the chief symbol of Christ and speaks of Christians as little fishes. Thinking of the regeneration through baptism, he says :

"But we fishlets are born, after our fish Jesus Christ, in the water."

And Clement of Alexandria sings in his famous hymn :

"Fisherman of mortals of the ransomed heirs,
Who from the hostile floods with sweet life the pure fishes catchest."



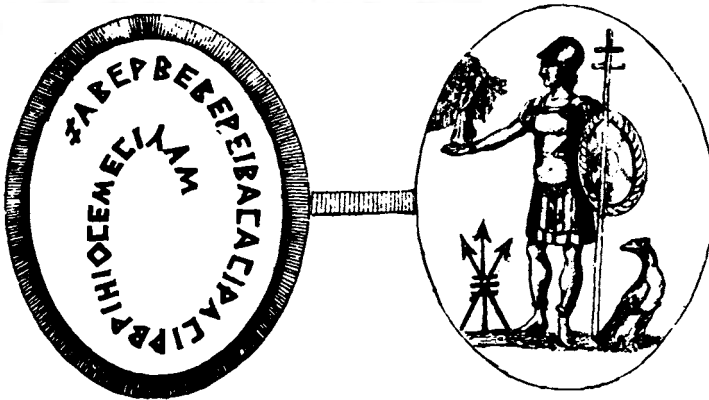
THE OXYRHYNCOUS FISH, THE SACRED ANIMAL OF HAT-HOR.
From a Bronze in the Louvre.

There are many other allusions in Christian literature to the fish¹ and its form is represented everywhere in the catacombs and on Christian gems.

Tot (or Thoth) the god of the scribes in Egypt was regarded as the medium of divine revelation and so he stood for science as well as salvation and held quite a similar place to the Christian logos. As the messenger of God he was identified by the Greeks with Hermes, who now was regarded as the manifestation of his father Zeus and as the saviour from death. The old Greek idea of Hermes as the leader of souls through the gates of death added strength to

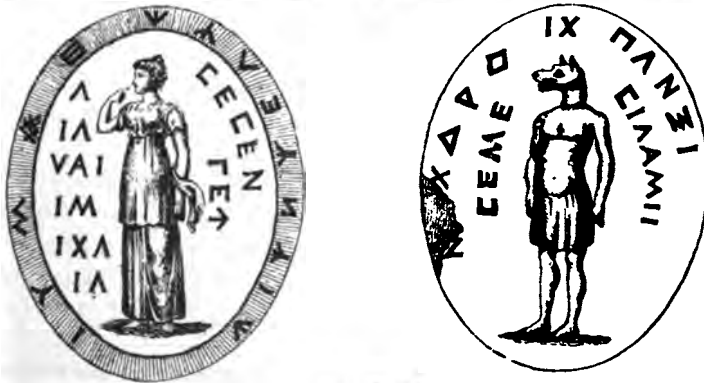
¹ An acrostic on ΙΧΘΥΣ in which every successive line begins with the words Jesus Christ, God's son, the Saviour, and ends in "σταυρός cross," is preserved by Galeus in the Sybilline songs. Another Greek poem of a similar kind which was written on a tomb-stone and was discovered in 1839 is quoted by the Rev. Samuel Cheetham in his *Dictionary of Christian Antiquities*, Vol. I, p. 806.

the new conception, and the Hermes staff, originally a combination of the solar disc and the lunar crescent γ , but misinterpreted in Greek art as two coiled serpents, became a symbol of the God who has the power of resurrecting the dead.



A HERMES-ZEUS WITH A DOUBLE CROSS.¹

Thoth-Hermes is called the thrice greatest and the shepherd of men, which latter word (*ποιμὴν ἀνδρῶν*) has been abbreviated into



ANUBIS GEM.²

Poimander or Pymander and the religion of his followers is described in a remarkable little book which may contain portions of great antiquity.³

¹From Walsh, No. 12. The inscription reads: ΖΑΒΕΡΒΕΒΕΡΒΕΙΒΑCΑCΙPACIPBPIHΘCE-MECIAAM.

²From Walsh, No. 9. Anubis is the jackal or dog-headed deity. He, like Thoth, is identified with Hermes. The female figure on the reverse indicates silence. The inscriptions are a mixture of Greek and other languages.

³Extracts from Hermes Trimegistos will be published in a separate article on the subject.

Serapis, which is a Hellenised form of Osiris-Apis, was a religion which in many respects resembled Christianity. Their sacred symbol was the cross, as we know through Christian authors,¹ and Emperor Adrian (no mean authority in such matters) speaks of Serapis worshippers as Christians, saying that those who consecrated themselves to Serapis called themselves "bishops of Christ." Even if a local blending of Christianity with the Serapis cult in Egypt had not taken place, we must recognise that the monkish institutions of the Serapean temples were an exact prototype of the Christian monasteries which originated in Egypt and flourished there better than anywhere else.

The Serapis cult was a reformation of the old Egyptian Osiris worship, introduced by Ptolemy Soter for the purpose of adapting the old traditions of Egypt to the Hellenic culture of Alexandria.



THE HERMES STAFF
ON A GEM.
(From King.)



HERMES RESUR-
RECTING THE
DEAD (KING).

The double cross (⛁) is a symbol of unknown significance, but it occurs in Greek Paganism as well as in Christianity. Christians as a rule interpret the second transverse beam to represent the board bearing the inscription. The third transverse line in a treble cross (⛃) is supposed to represent either the seating plug (*sedile*) or the foot-rest (*suppedaneum*).

The most curious specimens of ancient intaglios are those of a mixed nature, exhibiting partly the erratic disposition of their owners and partly their aspiration for universality. We reproduce (p. 287) a curious specimen of this kind—a combination of several symbolical animals. Three heads are attached to the feet of a cock, and the inscription IXΘYC (perhaps added by a later hand) proves the owner's attachment to Christianity. The human head, apparently the homely face of the stump-nosed and bald-headed Socrates, seems to stand for Greek philosophy. The ram indicates

¹ See Socrates, *Ecl. Hist.*, 5, 17, which report is repeated by Sozomenes.

the Egyptian Amon, the horse reminds us of the team of the sun-god, and is probably the emblem of either Helios or Mithras. The fish in the left corner is Christian; but the leaping hare to the right side is the symbol of the transiency of the world.¹



COIN OF CONSTANTINE WITH LABARUM.



COIN OF GALLA PLACIDIA.



COIN OF LUCINIA EUDOXIA.



COIN OF JUSTINIAN II.

ANTIQUE COINS WITH CHRISTIAN EMBLEMS.

The owner of the gem, the Rev. Churchill Babington (author of the article on gems in Smith and Cheetham's *Dict. of Ch. Ant.*), says :

"A remarkable sard intaglio, in the possession of the writer, may be mentioned as a kind of postscript. The device is a fantastic compound animal, a *gryllus* of the common type, being probably Roman work of the second or third

COIN OF EMPEROR CONSTANTINUS.²

century. Some Christian possessor has written the word IXΘYC about it, in order, it would seem, to christianise such a heathen production."

As the worship of the Queen of Heaven, which had been denounced as Pagan in the Old Testament, became re-established in

¹ The hare in Buddhist parables stands for the superficial hearer of the word. For the Christian significance of the hare, see Tertullian, *Ad nat.* II, and compare Fr. X. Kraus, *Gesch. der Ch. K.*, I, p. 145.

² This coin is interesting, because the globe, indicating the monarchical pretension to a right to rule over the whole world, is not as yet surmounted by a cross. Walsh, No. 22.

the Church, even to the preservation of the external features of the goddess standing upon the crescent and crowned with a garland of twelve stars,¹ so other ideas and conceptions of pristine religions reappear in the symbolism of gentile Christianity, giving them in an idealised form and after their assimilation to a rigid monotheism, a new lease of life in the territories of the Roman Empire.

So strong was the hatred of idolatry and the fear of imitating Pagan worship among the early Christians that the idea of having,



COIN OF FLAVIUS VALERIUS CONSTANTINUS.²

let alone reverencing, the image of Christ was scouted by the church-fathers, and the first demands for pictures of Christ were felt not in Christian but in Gnostic quarters among men of universalistic tendencies whose philosophical breadth induced them to revere Plato and Socrates, Moses and Christ, and to have their images rendered visible in the same style as the Pagans did with



COIN OF JULIAN THE APOSTATE.³

their gods, by the chisel of the artist. This practice, so severely condemned by the Christians themselves, was gradually accepted by the Church and finally enforced after a bitter strife with the iconoclasts.

¹ So the woman who becomes the mother of the Christ (verse 10) is described in Rev. xii, 1, where we read: "And there appeared a great wonder in heaven: a woman clothed with the sun, and the moon under her feet, and upon her head a crown of twelve stars."

² The Emperor stands on the prow of a ship with a phoenix perched on a globe in his right hand and a standard exhibiting the labarum in his left hand. Walsh, No. 21.

³ Walsh, No. 27.

The oldest representations of Christ are purely symbolical, picturing him as a lamb, then as Orpheus, the Greek God, who descended into Tartarus and was worshipped in Greece on account of the comforting Orphic mysteries in which obviously the immortality of the soul was taught under the form of one or another allegory. The prophet Jonah is another personality behind whom we must seek an allusion to Christ, because, as Jonah was three days and three nights in the belly of the fish, so Christ remained three days in the jaws of death and was resurrected on the third day.

One of the oldest images of Christ, perhaps the oldest in existence,¹ presumably a product of Gnostic art, is a portrait on ivory which shows above Christ's head the chrisma (✠) in a shape which exhibits its close resemblance to the Egyptian crux ansata (⋈).



GNOSTIC PORTRAIT ON IVORY.

The picture of Christ on medals makes its appearance not before the tenth century of the Christian era; and then very soon the Virgin Mary shared the strange honor. The first man who introduced this innovation was Johannes Zemises, a zealous adherent of image worship who slew the Emperor Nikephoras Phokas, the



COIN OF EMPEROR CONSTANTINUS MONOMACHUS.

After F. X. Kraus.

last iconoclast of the Greek church, with his own hand in his palace and was himself saluted emperor by his victorious party in 969. (IC XC.)

The following coin shows Jesus Christ on one side of the medal and Mary (MP ΘY), the mother of God on the other side. It is one

¹ So according to De Rossi's authority, see Smith and Cheetham's *Dictionary of Christian Antiquities*, 1, p. 876.

of the most beautiful specimens of its kind, for the general degeneration of the Greek Empire led to the decay of all the arts.

We conclude this sketch with a reproduction of a medal that shows the head of Christ with a Hebrew inscription and dates back to the year one (or in Hebrew א). It is of bronze; one copy was found by an Irish peasant in a potato-field near the site of an ancient monastery of Cork, another copy has been obtained from a



CHRIST AND MARY.

On a medal of the tenth century.¹

Polish Jew at Rostock, and the *Illustrirte Zeitung* informs us that a Parisian jeweller apparently ignorant of the fact that the coin is not unknown has lately reproduced a third copy in silver.

The inscription reads on the obverse: א-י-ש-ו and on the reverse:

משיח מלך בא בשלום וארטארים עשהו

Which means, "Messiah, the King, came in peace and as the light of the world he was made to live."



MEDAL OF HEAD OF CHRIST.

With Hebrew inscription.

There is no need of refuting the idea that the medal does not date back to the year one. It is difficult to judge of its age and place of manufacture without seeing the original, but we may fairly grant that for a counterfeit medal which pretends to be what it is not, it is an excellent piece of workmanship.

¹ Walsh, No. 38.

* This ought to be in our opinion an א. Walsh's transcription is full of mistakes.

MISCELLANEOUS.

SHALL WE WELCOME BUDDHIST MISSIONARIES TO AMERICA?

Dr. Carus, the editor of *The Open Court*, in December last chronicled the arrival of two Shinshu priests in San Francisco and quoted them as follows :

"Our intention is to spread the Gospel of Buddha among the Americans . . . revealed by the enlightened Lord Buddha Sakya Muni some 2500 years ago. . . . I have a very strong conviction that Buddhism is naturally destined to become the universal religion in the future, for the reason that there is perhaps no other religion equal to Buddhism that would satisfy the refined minds of the twentieth century. I am most happy to say that I have a very pious belief in the boundless mercy of Amitabha Buddha. My only goal is to attain myself, and help others attain, the *Maha-Nirvana*, where the highest freedom and true happiness may be enjoyed, which our Lord Buddha has revealed for the first time to mankind, suffering constantly from their own passions and ignorance inherited from previous existences."

Dr. Carus thinks Christianity would be greatly benefited if missions from other religions were sent to Christian countries, and sums up the matter in the words : "We heartily welcome the two Buddhist missionaries who have recently arrived in San Francisco."

No one questions that Dr. Carus speaks this welcome in sincerity and of good purpose, but he ought to have known better than to give such a welcome. If he had known this Buddhism as we in Japan know it he would have cut out his tongue rather than bid its priests welcome to America. For what is the Buddhism represented by these priests?

I. *Its Teachings.*

Hear Prof. Max Müller of Oxford : "This Sutra (the *Scriptures* of this sect) sounds to us, no doubt, very different from the original teaching of Buddha. And so it is : 'Repeat the name of Amitabha as often as you can, repeat it particularly in the hour of death, and you will go straight to Sukhavati and be happy,' this is what Japanese Buddhists are asked to believe; this is what they are told was the teaching of Buddha. Directly opposing the Buddhist doctrine that as a man sows so shall he reap this Sutra says 'No; not by good works done on earth, but by a mere repetition of the name of Amitabha is an entrance gained into the land of bliss . .

It may be that in a lower stage of civilisation even such teaching has produced some kind of good. But Japan is surely ripe for better things.

"Is it not high time that the millions who live in Japan and profess a faith in Buddha should be told that this doctrine of Amitabha is a *secondary form of Buddhism, a corruption of the pure doctrine of the Royal Prince*, and that if they really mean to be Buddhists, they should return to the words of Buddha, as they are preserved to us in the older Sutras? But these older Sutras are evidently far less considered in Japan than the *degraded and degrading tracts*, the *silly and mischievous stories of Amitabha* and his paradise of which, I feel convinced, Buddha himself never knew even the names." (Abbreviated and slightly changed in form from *Chips from a German Workshop*, Vol. V., p. 234 ff.—Italics ours).

II. In Practice.

In discussing this point we do not raise the question of the present moral condition of the Japanese people and its cause or causes; nor do we speak of individual lapses, which may occur anywhere. We speak of the priests as a class and especially of those in highest authority, and this we hold to be not unfair. And the circumstances call for plain statements of actual facts:

1. The chief-priest of this sect lives openly in concubinage. He has a large number of these women—somewhere between ten and twenty are figures usually given.

2. The devotees of the sect from the rural districts not infrequently take their daughters to Kyoto and offer them to this chief-priest as a religious act. Such incidents have been again and again reported in the Japanese newspapers, and intelligent Japanese say that in the province of Etchizen and elsewhere where the influence of this sect is most pervasive such an experience on the part of a woman is a recommendation rather than a hindrance to would-be husbands.

3. This chief-priest is not only the possessor of such a household, but over and above this is notoriously profligate. The houses of assignation are declared to be witnesses against him.

4. Two or three years ago a high official of their chief temple tried to marry the daughter of his concubine to the chief-priest and in this connexion the dishonesty and debauchery brought to light was a stench in the nostrils of even the Japanese. One of the Tokyo newspapers published a series of forty articles on the subject.

5. The chief-priest, and the leading officials being men of such lives it is not strange that Buddhist priests have the common reputation of being the most immoral class in the Empire. Records of hospitals which have been examined show that this rumor is not without solid foundation. The registers of the *Yoshiwara* show the same. So notorious is their conduct that government officials have repeatedly lectured them for their laziness and immorality.

6. As is mentioned in this article this sect has missionaries in Honolulu. Passing through that city last spring I was told that the chief patrons of the Buddhist missionaries there were those who traffic in the virtue, in the very life, of their sisters.

I do not assert that there are no priests who are sincere and upright men. There are doubtless those who greatly deplore the evils spoken of and I can believe the report that a few years ago one young reformer declared in the presence of the authorities that unless there was a reform he would cut off his right hand. What I claim is that a sect with such teaching and practice has no message of good to

America and that it is a dangerous sentimentality which bids them welcome to our shores. America, too, is "surely ripe for better things."

AUBURNDALE, MASS., April, 1900.

M. L. GORDON.

EDITORIAL REPLY.

I believe in liberty and free competition. The truth can only come to the front by giving a respectful hearing to every one who believes himself to be in possession of the truth. Even granting the indictments of Japanese Buddhism made by Mr. Gordon, we cannot see that they are worse than those which at one time or other could have been made against Christianity. Further, if the doctrine of the Shinshu is really as silly as represented by Mr. Gordon, I cannot understand how the Buddhist missionaries can be successful in this country. Accordingly they should not be considered dangerous.

Mr. Gordon omits to mention that the invocation of Amitabha's name has merit only according to Shinshu doctrines if made with a pure heart and in faith. It is practically the same as St. Paul's and Luther's doctrine of the saving power of faith. The *sola fide* is as much emphasised in Lutheran pulpits as by the founder of the Shinshu.

The Buddhist missionaries who have arrived from Japan are a kind of Buddhist Protestants. They belong to the Western Shinshu Sect whose leaders and members are known to be liberal as well as earnest in their religion. Their high priest Otani Koye is a noble-minded scholar of untarnished reputation, married to one wife, as are Protestant Christian bishops and highly respected in his country. His son, a promising youth, is sent out to study abroad; he is now in India and will soon go to Europe. Nothing but good is spoken of the family life of the Rt. Rev. Otani Koye, as well as other priests of this Shinshu sect.

The case is different with the Eastern Shinshu sect; but the Japanese missionaries of San Francisco have as little to do with them, as Mr. Gordon has with the polygamist Mormon Christians.

The present high-priest of the Eastern Shinshu, it is true, has been bitterly denounced by sincere Buddhists and a reform movement personally antagonising him has caused a split in his church; yet even his enemies grant that he is an uncommonly able man who in spite of all accusations is able to hold his own and remain in his influential position. His friends claim that the accusations are unfounded or are based upon misrepresentations. Mr. Gordon says the worst that ever has been said of him. Having no means nor time to find out the truth of the case, and having nothing whatever to do with the man, I propose to leave the matter in abeyance; for the question whether or not a religion should have a respectful hearing can not be disposed of by producing a black sheep from its fold. The fact cannot be doubted, and is least of all doubted by Prof. Max Müller whose views of Buddhism have undergone considerable change, that there are a great number of pure-hearted Buddhists, and I claim that the presence of Buddhist missionaries in this country will be beneficial to Christianity here as well as to Buddhism abroad. The evils which are caused by a friendly exchange of thought are transient but the blessings are permanent.

P. C.

A BUDDHIST CONVERT TO CHRISTIANITY.

All those who attended the Parliament of Religions at Chicago in 1893 will remember the stir made by the speech of Kinza Hirai, a Japanese Buddhist, a modest

young man who criticised severely the un-Christian treatment that his country received at the hands of the Christian nations. At the time I wondered whether in any other country a censure of the races represented by the audience would have been as warmly received as this Japanese Buddhist's was by his listeners at Chicago, who desired to demonstrate that he had a perfect right to speak out boldly, and encouraged the pluck of the modest-looking young Japanese. Mr. Kinza Hirai travelled for some time in this country lecturing on Japan and Japanese religion, and those who knew him and heard him speak will be interested in learning that he has become a Unitarian Christian.

In reply to the report of the Religious Parliament Extension he says:

"In my country the Religious Parliament idea has made very little progress, notwithstanding my efforts towards it, and there has occurred nothing to be specially noted as to raise the honor of my country. My sensation of a great shame was too strong to do any flattering statement. Although among the Buddhists there are not wanting those who show their sympathy to the Parliament Extension, yet they are not bold enough to join the movement chiefly from fear of being misunderstood. The Unitarians of Japan have the broadest idea among our religionists, and I could not find any other way better than to co-operate with them as the step towards our goal. I have been a member of the Unitarian Association here since last year and now live in Tokyo. What we the Japanese Unitarians do is in fact the Parliamentary Extension Movement. The American Unitarian Conference is to be held next May in Boston, when I, with another member, am going to represent the Japanese Association and will stay one or two days in Chicago, where I wish to have the pleasure of seeing you again.

"Your valuable magazine *The Open Court* has ever served as the organ of the Parliament Extension. I am always impatient to see the issue of every next number. It is a pity for the magazine as well as for our people, especially for the Japanese religionists, that it can not get a wide circulation in this country on account of its being written in English. I have ever considered that if the magazine translated into our own tongue, perhaps with a little modification on the general plan be published here, the benefit done for our country would be incomparable."

WESTERN PHILOSOPHICAL ASSOCIATION.

A number of teachers and students of Philosophy in the West met at Kansas City on January 1, 1900, and organised the Western Philosophical Association.

The aim of this society, says its prospectus, is "to stimulate an interest in philosophy in all its branches and to encourage original investigations."

"All advanced students of philosophy are eligible for membership to the new Association. There are about thirty charter members, representing the states of Missouri, Nebraska, Kansas, Colorado, Iowa, Minnesota, and South Dakota.

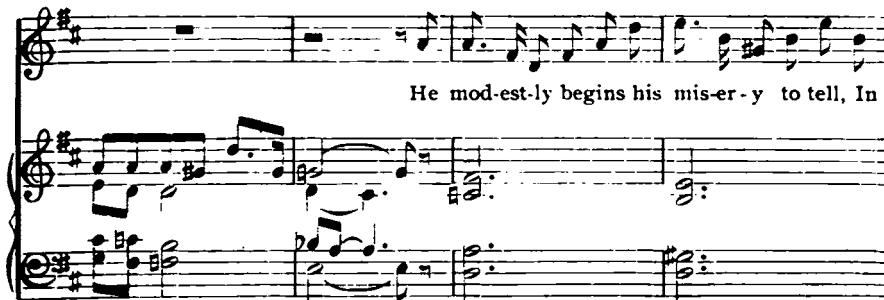
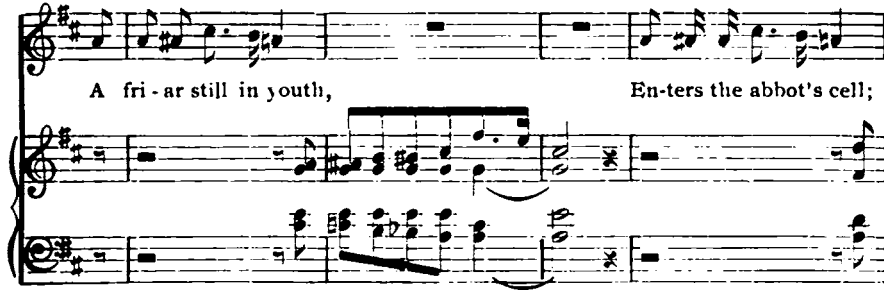
"The officers of the Association for the year 1900 are the following competent persons: Frank Thilly, Ph. D., University of Missouri, President; Olin Templin, A. M., University of Kansas, Vice-President; A. Ross Hill, Ph. D., University of Nebraska, Secretary-Treasurer; with G. T. W. Patrick, Ph. D., University of Iowa, and Cleland B. McAfee, Ph. D., Park College as additional members of the Executive Committee.

"The first regular meeting of the Association will be held at Lincoln, Nebraska, during the Christmas holidays of 1900."

THE FRIAR.

PAUL CARUS.

OLIVER H. P. SMITH.



2

THE FRIAR.

hope con-fes-sion will In - sur-gent doubts dis - pel; "De-

spite my fast and pray'r, With me no peace doth dwell!'" The

old man kind - ly looks In his re-pent - ant face. Quoth

THE FRIAR.

3

he, "Thou must be-lieve in God and in His grace!" "Ah,

fa - ther, that I could These

thronging doubts efface, And simp - ly as a child The

4

THE FRIAR.

hope of Christ embrace, And simply as a child The hope of Christ embrace.

My conscience nevermore from sin can find re - lease. The

more I pon - der them, The more my doubts in - crease.

THE FRIAR.

5

Oh, to have faith in God! Oh, that this pain would cease, A-

p *Agitato.*

This system contains the first staff of music for the vocal part and the first two staves of the piano accompaniment. The vocal staff begins with a whole rest followed by a series of eighth and sixteenth notes. The piano accompaniment starts with a piano (*p*) dynamic and an *Agitato.* marking. The first piano staff has a whole rest, and the second piano staff begins with a series of eighth notes.

las! is there no truth, And holdeth life no peace?" Old

This system continues the musical score. The vocal staff has a series of eighth and sixteenth notes. The piano accompaniment continues with a series of eighth notes in the first staff and a more complex rhythmic pattern in the second staff.

tomes on musty shelves Are ranged the cloister round. Their au - - thors

This system concludes the musical score. The vocal staff has a series of eighth and sixteenth notes. The piano accompaniment features a series of triplets in the first staff and a complex rhythmic pattern in the second staff.

6

THE FRIAR.

anx - ious-ly Had sought truth's depths to sound. In

vain! The mys-ter-y is none the less profound. Now, thro' the books, methinks, Com-

pas - sion did re - sound." The

THE FRIAR.

7

ab - bot wist - ful - ly Gazed on him in his pain A

This musical system features a vocal melody in the upper staff and piano accompaniment in the lower staves. The key signature has two sharps (F# and C#), and the time signature is common time (C). The vocal line consists of quarter and eighth notes. The piano accompaniment includes triplets and sixteenth notes.

si - lence long and sad did all his heart ex - plain; But

This musical system continues the vocal melody and piano accompaniment. The piano part features a more active melody with many sixteenth and thirty-second notes in the right hand, while the left hand provides a steady bass line.

In his thought-ful eyes Was

This musical system concludes the vocal melody and piano accompaniment. The piano part features a more active melody with many sixteenth and thirty-second notes in the right hand, while the left hand provides a steady bass line.

8

THE FRIAR.

writ this dole-ful strain: "Thou look'st for peace and truth In

this our world in vain, In this our world in vain!"

meno mosso.

rall. *ppp*

The musical score is written for voice and piano. The key signature has two sharps (F# and C#), and the time signature is 4/4. The vocal line consists of two staves. The piano accompaniment consists of two staves. The first system of music includes the lyrics "writ this dole-ful strain:" and "'Thou look'st for peace and truth In". The second system includes the lyrics "this our world in vain, In this our world in vain!". The third system is marked "meno mosso." and the fourth system is marked "rall." and "ppp".

ALBERT AND JEAN RÉVILLE.

We congratulate ourselves on being able to present to the readers of *The Open Court* the portraits of MM. Albert and Jean Réville, of Paris, France, the moving spirits of the International Congress of the History of Religions, to be held during the Universal Exposition at Paris from September 3d to 9th, 1900. M. Jean Réville's own article in the present number will give adequate information regarding the purpose, character and constitution of this Congress, and we may therefore limit ourselves in this note to a brief biographical sketch of the two personalities who have been its main organisers.

M. Albert Réville, the president of the Congress, was born at Dieppe, France, in 1826. He is a Doctor of Theology, which in Europe is an honorary degree denoting scholarship and talents of high distinction, and was for twenty-two years pastor of the French church at Rotterdam, Holland, where he acquired the repu-



ALBERT RÉVILLE.



JEAN RÉVILLE.

tation of being one of the foremost preachers and theologians of French Protestantism. Since 1880, he has been professor of the history of religions in the Collège de France at Paris, where he created a branch of instruction which did not exist prior to his time. Since 1886 he has also been president of the Faculty of Religious Sciences in the École Pratique des Hautes Études at the Sorbonne. So successful and zealous has he been in the prosecution of his aims that it is doubtful whether the facilities for study and research in this department of religious science are to be surpassed in any other university of the world.

Besides numerous articles in the *Revue de théologie de Strasbourg*, in the *Revue des Deux Mondes*, and in various other magazines, M. Albert Réville has written a large number of works, of which the principal ones are as follows: *Essais de critique religieuse* (1860); *Études critiques sur l'Évangile selon St. Matthieu* (1862); *Théodore Parker, sa vie et ses œuvres* (1865); *Histoire du Dogme de la divinité de Jésus Christ* (1876); *Prolégomènes de l'Histoire des Religions*

(1881); *Les Religions des non civilisés* (2 vol., 1883); *Les Religions du Mexique, de l'Amérique centrale et du Pérou* (Hibbert Lectures, French edition, 1885); *La Religion Chinoise* (1889); *Jésus de Nazareth* (2 vol., 1897). M. Réville's *Manual of Religious Instruction* has been translated in several languages. As appears from one of the above-cited works, he has been a Hibbert lecturer and he is also known in this country as a contributor to *The New World*, of Boston.

M. Jean Réville is the son of M. Albert Réville, and has been scarcely less active than his father in the field of religious investigation. He was born in Rotterdam, Holland, in 1854, is also a Doctor of Theology, and one of the Protestant leaders of France. He occupies the post of chaplain in the Lyceum of Henry IV, at Paris, and has been a lecturer on the History of the Christian Church at the École des Hautes Études at the Sorbonne since 1886 as well as at the Faculty of Protestant Theology since 1894; he has also been editor of the *Revue de l'Histoire des Religions* since 1884.

His principal works are as follows: *La doctrine du Logos dans le IV^e Évangile et dans les œuvres de Philon* (1881); *La Religion à Rome sous les Sévères* (1886; German translation by G. Krüger in 1888); *Les Origines de l'Épiscopat* (1894); and *Paroles d'un libre-croyant* (1898).

THE CURVE OF IMMORTALITY.

We have printed as an Appendix to the present number of *The Open Court* an essay which is likely to be of real interest to many of our readers, and which for others will possess at least the attraction of a curiosity. The author, who is a septuagenarian, was for several years a University professor of Astronomy and subsequently for a third of a century scientific editor of one of the great Chicago dailies.

To forestall at the outset all possibility of misunderstanding, attention should be called to the fact that the author does not claim for his argument the value of a *proof* of the doctrine of sentient existence after death and that he expressly remarks that it would be "absurd" to do so. In addition to this explicit reservation of the author, we would insist on the following independent and general critical point of view which should be carefully pondered by the reader both before and after his perusal of the argument. Mathematics, being in one of its aspects, the science of form and of the combinations of form, there is no formal relation conceivable that cannot be expressed by it. Its world of pure and possible forms is absolutely inexhaustible, and is infinitely richer than the world of material and physical forms. It does not follow therefore that because a mathematical relation exists there must exist corresponding to it in the so-called objective world some definite physical reality. We have geometries of n -dimensions but no worlds of n -dimensions. Now as to the peculiarity of the curve in question, namely its completeness in one of its parts and the break in its continuity, it is to be remarked that it shares this property with a very large number of other algebraical curves, and that these curves present such "infinite variety" that there is scarcely a dogma of religion so wild or exceptional that could not be put into very close analogy with some one of them. It would be very easy, for example, to construct or find an analogy in algebraical geometry for the Buddhist doctrine of the transmigration of souls, or of the dogma of cycles of existence. In sum, the mechanism for graphically representing algebraical possibilities, which Descartes gave us, is far more powerful and comprehensive than even the wildest fancies of the founders and dog-

matists of the great historical religions. A skilful algebraical geometer could give the author of Revelation his tit for tat at every turn.

T. J. McC.

DR. ISAAC M. WISE.

We have learned with deep regret of the death of Dr. Isaac M. Wise, of Cincinnati. Dr. Wise was the Nestor of the Jewish rabbis in America, and as pastor of the B'ne Jeschurun congregation was for a great number of years the protagonist of reformed Judaism in the West. His activity, however, was not limited to the pul-



ISAAC M. WISE.

pit, for he was also the author of a number of books and pamphlets, and was greatly interested in the theoretical questions of religion. He had been a reader of *The Open Court* from the beginning, and we exchanged from time to time letters on subjects of common interest. He was the founder of the Hebrew Union College, and had been its president since 1875. He also founded and was until his death president of the Central Conference of American Rabbis. He founded the *American Israelite* and *Die Deborah*, and edited both to the last. Deceased was within a few days of his eighty-first birthday. His son Dr. Julius Wise, better known as *Nickerdown*, will largely continue his father's work on the Jewish press.

SOLOMON AND SOLOMONIC LITERATURE.

"The general world has for ages been working under the spell of Solomon while believing him to be dead," says Mr. Moncure D. Conway in his latest and perhaps the most important work of his long literary and public career. "Solomon is very much alive. Many witnesses of his talismanic might can be summoned 'from the homes and schools wherein the rod is not spared, however much it 'spoils the child, and where youth's 'flower of age' bleaches in a puritan cell because the 'wisest of men' is supposed to have testified that all earth's pleasures 'are vanity. And how many parents are in their turn feeling the recoil of the rod, 'and live to deplore the intemperate thirst for 'vanities' stimulated in homes 'overshadowed by the fear-of-God wisdom for which Solomon is also held responsible? On the other hand, what parson has not felt the rod bequeathed to the 'sceptic by the king whom Biblical authority pronounces at once the worldliest 'and the wisest of mankind?"

Many of the articles which constitute this book have appeared in *The Open Court*, and our readers, who will remember the skill, learning, and sententious wit with which Mr. Conway has collated and interpreted the Solomonian legends of the world, will be glad to have these essays, with much additional and supplementary material, collected into the present compact and attractive volume.

In the development and spread of that vast body of universal folklore known as the Solomonian legends, Mr. Conway believes there are two distinct streams of evolution; one issuing from the wisdom books of the Bible, the other from the law-books. These two streams "are clearly traceable in their collisions, their periods of parallelism, and their convergence,—where, however, their respective inspirations continue distinguishable, like the waters of the Missouri and the Mississippi after they flow between the same banks." He continues: "The present 'essays by no means claim to have fully traced these lines of evolution, but aim 'at their indication. The only critique to which it pretends is literary. The 'studies and experiences of many years have left me without any bias concerning 'the contents of the Bible, or any belief, ethical or religious, that can be affected 'by the fate of any scripture under the higher or other criticism. But my interest 'in Biblical literature has increased with the perception of its composite character ethnically. I believe that I have made a few discoveries in it; and a volume 'adopted as an educational text-book requires every ray of light which any man 'feels able to contribute to its interpretation."

And every reader of this book, whatever his prepossessions, will say that if Mr. Conway has not "enlightened" his subject, he has certainly *enlivened* it. We quote his beautiful concluding words:

"The human heart kneels before its vision, and with Mary Magdalene cries 'Rabboni, My Master; but Theology recognises only the perfunctory Rabbi, and 'carries her beloved off into union with thunder-god, war-god, or with a deified 'predatory Cosmos. Yet will not the heart be bereaved of its vision; it still sees 'a smile of tenderness in the universe. And philosophy, though it regard that 'smile as a reflexion of the heart's own love, may with all the more certainty itself 'find a religion in this maternal divinity in the earth, ever aspiring to its own supreme humanity.

"Solomon passes, Jesus passes, but the Wisdom they loved as Bride, as 'Mother, abides, however veiled in fables. She is still inspiring the unfinished

"work of creation, and her delight is with the children of men." *Solomon and Solomon's Literature*. By M. D. Conway. Chicago: The Open Court Pub. Co. London: Kegan Paul, Trench, Trübner & Co. Pp., 248. Price, \$1.50 (6s.).

THE MONK.

BY J. L. M'CREERY.

A pious monk, in mediæval days,
Within the confines of his narrow cell
Fell on his face and passionately prayed :
"O Being infinite and immanent,
"Pervading Spirit of the Universe—
"If aught there be in earth or heaven besides
"A figment by tradition handed down,
"A vast Nonentity, to which we cling'
"With fierce tenacity because we shrink,
"From saying, 'Death is an eternal sleep'—
"If Thou hast said, 'Ask and ye shall receive,'
"Or promised to the heavy-laden soul,
" 'Come unto me and I will give thee rest,'
"Grant me, O God, some token that Thou art,
"Lest I should perish in my unbelief :
"I weary of this world of vanities,
"Its transitory and illusive joys,
"Of my own ceaseless and ignoble strife
"To gather bubbles to my cheated arms;
"I long for the Eternal and the True,
"I thirst for Peace, and Holiness, and Thee."

As gently as the faint but growing dawn
Displaces darkness from the face of earth,
About the monk a tender glory grew ;
He seemed to be no longer in his cell ;
As tenuous as the spiritual world
Had been before to his material eyes,
Such gossamer were the monastery walls
To his illumined spiritual sense,
And he afloat upon the pulsing waves
Of an ethereal infinitude.

Then from the glory came a Voice that said :
"My son, lo, I have waited for thee long ;
"Have heard thy cry, 'O what and where is God ?'
"As though a bird should ask, 'Where is the air ?'
"Thou wert enveloped in the Great I Am,
"But knew it not, because thy sense was dim :
"I am thy Life—there is no other life ;
"I am the central and surrounding Source of Light ;
"I am the Fountain of all forms of Joy ;
"I am thy faithful never-failing Friend ;

" I am a Father's ever-watchful care ;
 " I am a Mother's brooding tenderness ;
 " I am thine Elder Brother by thy side ;
 " I am at once thy Bridegroom and thy Bride ;
 " Naught comes to thee that cometh not from Me :
 " I love thee with an everlasting Love—
 " But can not give thee light, nor love, nor joy,
 " Beyond what thou art willing to receive.

" Behold the many-chambered Nautilus :
 " A dweller, at her choice, in different realms,
 " Sometimes, when skies are bright and seas are calm,
 " She leaves the darkness of her native depths,
 " Floats to the surface and outspreads her sail,
 " Rides on the ocean's gently heaving breast,
 " Rejoicing in the light and warmth of day.
 " Had she remained for life where she was born,
 " Content to delve in the primeval slime,
 " Creeping in caves a hundred fathoms deep,
 " No ray of sunshine could have reached her there,
 " No breath of summer filled her tiny sail :
 " God's radiance bathes the universe in vain
 " For thee, unless thou rise into the light "

The monk beheld, and heard ; and filled with awe
 And sweet and solemn peace, he fell asleep.

Next night again the pious monk lay down,
 And prayed : " Come thou divine and glorious One,
 " Thrill me again with new-found happiness ! "
 But prayed in vain ; impenetrable gloom
 Surrounded him—grew deeper as he prayed.
 " Alas ! " he cried, " God hath forsaken me,
 " Or my experience was but a dream ! "
 And then he fell upon his face and wept.

But through the darkness came a still, small voice :
 " Remember, son, the tenor of thy prayer :
 " It was for happiness. Thou turned from God,
 " Thy narrow purpose centered on thyself ;
 " If thou wouldst see the light, look up, not down ;
 " Look out, not in—for selfward all is dark ;
 " And God reveals himself unto the soul
 " That seeketh not its own delight, but Him."

In time the pious monk this lesson learned ;
 And when he had forgot to care for joy,
 Enamored of the highest excellence,
 In love with Justice, Truth, and Holiness,
 And filled with tender pity for his kind,
 Again the golden glory filled his cell :

"Dear Lord," he cried, athrill with ecstasy,
 "Thou knowest that I love Thee—stay, O stay!"

Then at the monastery's outer gate
 He heard the ringing of the outer bell;
 He hastened thither, and in waiting found
 A beggar, weary, hungry, and in rags;
 He led the stranger in, and gave him food,
 And washed his feet, and bade him stay till morn,
 Then sought again his cell with eager haste.
 The formless glory had assumed a shape,
 A radiant and smiling angel now,
 Who said, "Well done; if thou hadst waited here,
 "When duty called thee, I could not have stayed;
 "But as thou turnest from thy highest joy
 "To serve the lowest of thy fellow-men,
 "I come to dwell with thee forevermore."

BOOK-REVIEWS.

AN ETHICAL SUNDAY SCHOOL. A Scheme for the Moral Instruction of the Young.
 By *Walter L. Sheldon*, lecturer of the Ethical Society of St. Louis; author
 of "An Ethical Movement." London: Swan Sonnenschein & Co., Ltd.
 New York: The Macmillan Co. 1900. Pages, 206 Price, 3s.

Mr. Walter L. Sheldon, lecturer of the Ethical Society of St. Louis, has here given us a first rough sketch of his scheme for the moral instruction of the young as carried out by him in recent years with the congregation of his city.

It has been Mr. Sheldon's endeavor to reverse the process customary in the average Sunday School; in his scheme the teaching of religious conceptions so called is made to come at the end of the course, while the elements of morality are taught at the beginning. It has not been his intention to antagonise the existing religious beliefs, but to supplement them by more methodical and more persistent religious school-work. The religious services consist of responsive exercises which deal with great ethical truths, as the traditional Sunday schools deal with theological truths. These responsive exercises are intoned by the superintendent or the teachers, and are answered by the school. To us, most of these lack the note of time-honored seriousness, or shall we say, emptiness, of the traditional exercises; for example, the refrain "We are glad to be alive." Songs are then sung, and various religious and secular pictures are exhibited and contemplated for the purpose of "teaching the vague sense of the Infinite lurking in the minds of the young." One of the main features of the course of ethical instruction as here designed is precisely the establishing of "this background of sentiment," the desire to "associate the sentiments belonging to the Eternal, the Infinite, the Absolute, with the distinctions between Right and Wrong, with the thought of the Moral Law—but not to use these words so that they shall become hackneyed." This "background of sentiment," Mr. Sheldon admits, might have comparatively little value if it stood by itself; its significance comes in only when it is connected with other work, which is the rearing of an ethical superstructure upon this foundation of vague poetical and æsthetic feeling. A further help for associating this "solemn mystical feeling about the Eternal and the Absolute, with the teachings of moral-

ity" is sought in the musical service, which consists of piano, violin and cornet solos, or of songs. The different mornings are devoted to the different duties associated with the state, the home, etc. For each day there is a "Beautiful Thought" selected from the classical ethical literature of the world. Finally, some one of the young people gives a recitation, and the leader of the school reads a short story which may be from the Bible, or may illustrate some critical period or mode of thought of the world's religious development.

Both orthodox and free thinkers will find much to criticise in Mr. Sheldon's scheme; the one will find it lacking in unction and force, and the other as sanctioning too strongly the weaker points of the old methods; but we believe that both sides will find suggestions in the book which may stand them in stead in their own work. We have Mr. Sheldon's assurance that the scheme is working successfully, and that its success was attained only after many years of disappointment and failure.

μ.

Lovers of artistic book-making will thank us for calling their attention to the recent publication of Mr. Mosher's seventh "Old World" edition of Fitzgerald's *Rubāiyāt of Omar Khayyām*. The person who is unacquainted with the quatrains of the great Persian Astronomer-Poet has missed the inspiration of the most delightful production of the world's Wisdom-Literature, and he could make amends for his soul's unspeakable omission in no more fitting way than by forming that acquaintance through the medium of Mr. Mosher's elegant little volume. He will have here the parallel texts of the most important of Fitzgerald's own editions, a pronouncing vocabulary, a biographical sketch of Fitzgerald's life by Mr. W. Irving Way, a comparative table of quatrains, together with Fitzgerald's original introductions. The edition is limited to 925 copies on Van Gelder paper (\$1.00 net) and 100 numbered copies on Japanese vellum (\$2.50 net). (Thomas B. Mosher, 45 Exchange St., Portland, Me.)

The November number of the *Bibelot Series*, by the same publisher, was *Our Lady's Tumbler*: a twelfth century legend done out of old French into English by Philip H. Wicksteed. This number having been exhausted, but in considerable demand, Mr. Mosher has brought out the story in an old-style *format* with Chiswick headbands and rubricated initials, and done up in decorated Japan vellum wrappers. 450 copies have been printed on Van Gelder paper (\$1.00 net) and 50 numbered copies on Japan vellum (\$2.00 net).

To Mr. Mosher's spring publications are to be further added: (1) a vestpocket edition of Elizabeth Barrett Browning's *Sonnets from the Portuguese* with a preface by Edmund Gosse (blue paper wrapper, 25 cents net); (2) *Lyrics*, by Cosmo Monkhouse, being the March number of the *Bibelot Series* (5 cents); and (3) *Golden Wings*, a tale by William Morris, being the April number of the *Bibelot Series*.

NOTES.

The article on "The Jesuits and Mohammedans" in the March *Open Court* was wrongly attributed to Dr. Arthur Pfungst. The real author is an editorial writer on the staff of the *Frankfurter Zeitung*. Our error was due to the article's having been originally called to our notice by Dr. Pfungst.

APPENDIX.

CURVE OF IMMORTALITY

MATHEMATICAL ANALOGY
TO DEATH AND THE RESURRECTION

By A SEPTUAGENARIAN.

FERGUS PRINTING CO., CHICAGO.

"If a man die, shall he live again? Job, xiv, 14.

"Then shall the dust return to the earth as it was, and the spirit shall return unto God who gave it." Ecclesiastes, xii, 7.

"The Lord himself shall descend from heaven with a shout, with the voice of the archangel, and with the trump of God: and the dead in Christ shall rise first." I. Thessalonians, iv, 16.

"*If there be no resurrection of the dead, * * * then is our preaching vain, and your faith also is vain * * ** The trumpet shall sound, and the dead shall be raised incorruptible * * * For this corruptible must put on incorruption, and this mortal must put on immortality." I. Corinthians, xv, 13, 14, and 52, 53.

"When the Son of man shall come in his glory, and all the angels with him, then shall he sit upon the throne of his glory: And before him shall be gathered all the nations * * * And these" [the wicked] "shall go away into eternal punishment, but the righteous into eternal life." Matthew, xxv, 31, 32, and 46.

"The hour cometh in which all that are in the tombs shall hear his voice, and shall come forth." John v, 28 and 29.

"I believe in * * the resurrection of the body, and the life everlasting. Amen." Apostles' Creed.

The author of the matter on the following pages has listened to a great many funeral discourses, in churches of different denominations and elsewhere, but does not remember to have heard the doctrine of a final, simultaneous, resurrection of the dead insisted upon in a single one of the number. In numerous instances the Pauline sentences, quoted above, were *read* in course as part of the regular service, but "the resurrection of the body" was not specifically alluded to otherwise by Protestant clergymen. On the other hand, the immortality of the soul was alluded to with more or less fullness in the great majority of their addresses, and generally was spoken of as if belief in it as a verity were taken for granted by the members of the audience as well as by the speaker. Of course it is known that Roman Catholics feel bound to believe that there is a purgatory for the soul while the body is in the grave. But, as a rule, the remarks made by Protestant clergymen were such as to justify the inference that they believe the spirit, immediately after the death of the body, returns "unto God who gave it," and has its status fixed without waiting for a judgment that is to follow a general resurrection. The author supposes that the preceding statement holds true, approximately, if not accurately, in the case of many millions of funeral dis-

courses that have been delivered within the last half-century. He, however, does not wish to be understood as claiming that many or any of the clergy deliberately abstain from preaching the doctrine of a final resurrection of the dead, which, for many thousands of millions who have died already, and probably for untold millions who will die in the future, would occur long after the complete decomposition of the body (except here and there a few bones), and the recombination of the decomposed material into other organic forms. Yet it can not be denied truly that in recent years there has been a growing and widening inclination among regular attendants on church services, as well as outside their ranks, to doubt the truth of that particular doctrine; and it were no wonder if the leaven of doubt has entered the minds of some of those who have pledged themselves in ordination vows to preach "the faith which was once for all delivered unto the saints."

Also, it hardly will be denied that if any such doubt be entertained it is based in large part upon considerations named in the few lines last preceding this, which constitute real or supposed scientific grounds for scepticism, or that the doctrine of the immortality of the soul would be objected to less if it were not associated with that of a resurrection of the body. It, therefore, should be recognized as a matter of some interest to ascertain if scientific reasoning can be brought to bear on the subject, either directly or indirectly. The author has ventured to discuss the problem along mathematical lines, having in mind a remark made by Professor Huxley, that "the facts of consciousness are, practically, interpretable only by the methods and the formulæ of physics."

The first section of the following essay should not be difficult reading to any one who has mastered the notation of elementary algebra, because the author has explained with sufficient fullness the representation of lineal magnitudes by algebraic symbols, so far as they are required to be used in the work. He can promise that such a reader will be able to understand this first section, provided he is willing to go through it carefully. The second part is a little more abstruse, but correspondingly more comprehensive. For both sections, it is hoped that the new line of thought they are intended to open up will be found interesting enough to repay the labor of a patient perusal.

No. 2 Groveland Park, Chicago.
Easter, 1900.

C.

CURVE OF IMMORTALITY.

MATHEMATICAL ANALOGY TO DEATH AND THE RESURRECTION.

It often has been asserted that physical science furnishes no support to the claim that there is a spirit entity in man the individuality of which persists after the death of the body. It is true that Paul sought to establish a parallel between the resurrection of a "spiritual body" and the growth from a vegetable seed which can not be "quickened except it die"; and that lesser lights have adduced insect metamorphosis as another parallel to a claimed persistence from a material existence into one that is spiritual. But both of these are poor as illustrations, and utterly valueless as alleged proof. Paul virtually admits that the vegetable entity which springs from the seed is no higher or lower in the scale of existence than was its immediate predecessor, being identical with it in "kind." In the case of the insect phenomenon cited, the alleged illustration is a much poorer one, for the organism does not rot while in the pupa state, and in very many of the Class the moth is exceedingly short lived, dying immediately after having provided for the perpetuation of its species. There is nothing in either of these assumed parallels, or illustrations, that points to a higher or better state of existence, still less to one of persistence of the individual entity through a long course of ages. The writer, some years since, called attention to the persistence of memory while the material constituents of the body are giving place to new ones, as the strongest scientific indication we possess toward a continuance of individual existence after the death of the body; but even that is no proof. And we can not believe in the eternity of matter while refusing to admit that force is eternally existent, without being severely illogical; but we have no more scientific warrant for believing in a perpetuated individuality for any named collection of physical force than we have for that of any known aggregation of material units.

An argument against the value of belief in a future state of existence has been drawn from the mathematics, and many have regarded it as a strong one. It may be of interest to exhibit this, in brief, and all the more so as we can derive in the opposite direction an argument that is equally strong, if not stronger. In order to do this, we employ the method of rectangular coördinates.

Through any conveniently situated point in a vertical plane, we may draw a horizontal straight line and a vertical straight line, and take these lines as the axes of any desired number of rectangular coördinates. They intersect at right angles, and may be supposed to extend to any required distance in each direction in the plane in which they are drawn.

<i>Any distance measured</i>	<i>Is designated by</i>
To the right from the vertical axis,	x
" " left " " " "	$-x$
Upward from the horizontal axis,	y
Downward " " " "	$-y$

each distance being measured on a line which is parallel to an axis.

The radius of the circle is denoted by a . The equation for the circle as referred to an origin at the circumference, is $y^2 = 2ax - x^2$; and for every possible numerical value of x , when substituted in this equation, we obtain two equal values of y , one above the horizontal axis and the other below it, because $+y^2 = (-y)^2$ and $= (+y)^2$. Furthermore, any value of x that is negative, or that is greater than $2a$, will give a minus value for y^2 , showing that there is no point in the curve to the left from D or to the right from A, in our first diagram.

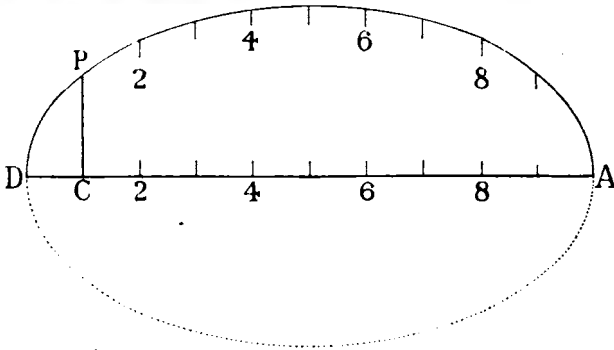
Now, if we introduce another value, p , and write

$$y^2 = 2px - (p/a) \cdot x^2$$

we shall have an equation which holds good for all the conic sections, p being a perpendicular from the focus in each case, and the focus becoming the center in the case of the circle. Also, if we take q to designate the distance from the origin to the focus, then in the circle, $p = q$; in the ellipse, p is greater than q , but less than $2q$; in the parabola, $p = 2q$; and in the hyperbola p is greater than $2q$, the value of a being minus in the last-named curve, so that

— $(p/a) \cdot x^2$ is a positive quantity to be added to $2px$ in order to obtain the value of y^2 in the hyperbola. In the parabola a is infinite, whence $y^2 = 2px$.

We present here a figure of the ellipse, because it is that one of the conic sections with which the progress of human life most frequently has been supposedly compared.



In this diagram $DA = 2a$; $CP = p$; and $DC = q$. If we take q as the lineal unit, and measure off two, four, etc., units from D , on the horizontal axis, the perpendiculars 2, 2; 4, 4; etc., will be the corresponding values of $+y$. Then, if we suppose the increase of x from zero to the length DC to correspond to the first seven years of life, that each of the succeeding increases of x by a unit corresponds to seven years, and that the resulting values of y be the measures of vital power at the different times, we shall have a pretty close parallel, not to every human life, but to the average of all the lives which are not terminated by accident or by disease other than those which are incident to old age. The measure of power increases from nothing at or just before the beginning of life, to its maximum between the ages of thirty and forty, declining thence to the death zero at about the point assigned by the Psalmist as "three score and ten." We may extend x as far as we please in the minus direction (to the left) from D , or as far as we please in the plus direction to the right beyond A , without obtaining for y any value that is other than imaginary. Hence, if this curve really be entitled to be called the equation of human life, then it holds out no hope of life beyond the grave.

Furthermore: if we choose to adopt into this discussion the very extensively entertained idea that the principle of negation is the principle of evil (as indicated all the way down from the "ye shall *not* surely die," said to have been spoken by the serpent in the garden of Eden, to the "acarm" of the Sanscrit, and thence along the stream of time to the latest claim that "unbelief is sin"), we may take the plus values of y , those which are situated above the horizontal axis, to represent the activities of the good and useful life, and the negative values of y , those which are situated below the horizontal axis, to represent the "pernicious activities" of the sinful life, these also being extinguished by death, and not followed by punishment beyond the grave.

It is true that in the parabola and hyperbola the value of y continually increases with every augment in the value of x , (and that we can construct a companion hyperbola to the left from the vertical axis), the one coördinate becoming infinite when the other is so; but in each of these cases, the curve is continuous, and presents nothing that could be adduced as a parallel to a real or apparent discontinuity between life in the body and life after death of the body. So with the cycloid, which is described by a point in the circumference of a circle while the circle is rolled along a straight line, as a carriage wheel rolls along a road. By keeping the circle rolling far enough we may produce any desired number of cycloidal curves, but all of them are equal in dimension to each other, comparable in this respect with the succession of individuals in a genealogical line of plant or animal existences; and there is no blank between them, each member of the succession of cycloids beginning at the same point as the one in which its immediate predecessor terminates. So, while the cycloid may be taken as typifying the progress of human life, it is not susceptible of application or similitude to a higher and more prolonged existence after death.

There is, however, a curve which contains the remarkable properties here suggested. It is represented by the equation

$$m^2 y^2 = x \cdot (x - b) \cdot (x + c).$$

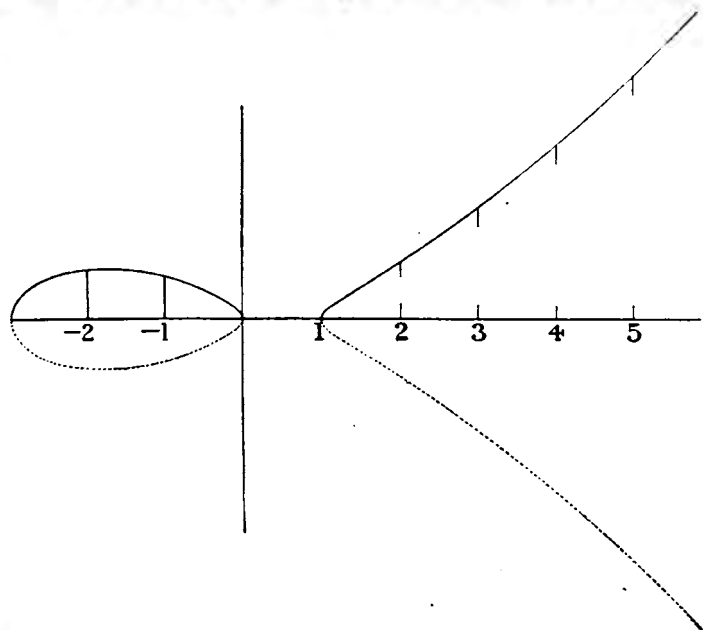
where m , b , and c retain the same numerical values while we assign to x any desired number of different numerical values, in succession, and thence determine from the equation the corresponding values of y . For instance, if we take $b = 1$, and $c = 3$, we may construct the following table of approximate values for $m y$;

x	$x - 1$	$x + 3$	$m^2 y^2$	$m y$
-3·	-4·	0·	0·	0·
2·7	3·7	+0·3	3·0	1·73
2·4	3·4	0·6	4·9	2·21
2·1	3·1	0·9	5·86	2·42
1·8	2·8	1·2	6·05	2·46
1·5	2·5	1·5	5·6	2·37
1·2	2·2	1·8	4·75	2·18
0·9	1·9	2·1	3·6	1·9
0·6	1·6	2·4	2·3	1·52
-0·3	1·3	2·7	1·05	1·03
0·	-1·0	3·0	0·	0·
+1·	0·	4·0	0·	0·
1·25	+0·25	4·25	1·3	1·15
1·5	0·5	4·5	3·4	1·75
2·0	1·0	5·0	10·0	3·16
3·	2·	6·	36·	6·
4·	3·	7·	84·	9·2
5·	4·	8·	160·	12·7
+6·	+5·	+9·	270·	16·4

Multiplying together the numbers in the first three columns we obtain the results in the fourth column, the product being zero in each case where one of the factors is zero. Then, assigning to m any desired value, we divide by it the numbers in the fifth column, and may construct a diagram such as the accompanying one, in which $m =$ about 3·9. It will be noted that the whole of the closed curve is on the minus side of the vertical axis, and that this part of the curve is not elliptical but oval shaped; and that any value of x which is less than -3 , also any value of x between the limits of zero and $+b$, makes y^2 a minus quantity, for which y has no real value.

The unit of measurement chosen for x in our diagram may be supposed to correspond to about twenty-five years, or a little less, in the duration of human life. Then, for that part of the curve which is above the horizontal axis we may trace the parallel somewhat as follows: Beginning at the extreme left we have a rising from nothingness to a maximum of vigor that is attained between the ages of twenty-five and thirty, which certainly for the physical (example in

the case of athletes), and with very many for the mental power, is a closer parallel than is offered by the ellipse as previously considered. Then comes a decline, slow at first, and proceeding more rapidly with a lessening of the distance from the vertical axis which is the normal terminus for bodily life. Following this (still proceeding toward the right), is a period of apparent nothingness, which may be compared with that of "rest" in the grave. Then the curve suddenly



starts upward, and its distance above the horizontal axis continually increases with every increase in the value of x , the one becoming infinite if the other be increased to infinity. It is not difficult to regard this right-hand portion of the curve as illustrating the resurrection of what St. Paul expressly stated will be "a spiritual body," in contradistinction to the "natural body" which was buried in the grave, and a continuous ascent thereafter toward the infinity of perfection and power to enjoy through a blissful eternity. Furthermore, if we choose to consider that portion of the curve which is below the horizontal axis as representing the career of the wicked (page 8), the idea will agree with what has been claimed by the orthodox churches through a long course of ages, to be reserved for sinners.

The assigning of minus values of x for that portion of the curve which is situated to the left from the vertical axis, harmonizes with the idea expressed by Benjamin Franklin in his "last words" which were: "A man is never perfectly born till after his death."

It should be remembered that this curve, with its apparently complete discontinuity between branches that may seem to be totally different in character, the one being a closed curve and the other an open one, however far extended, is obtained by the successive substitution of different numerical values of a single variable quantity (x), in a single equation. It, therefore, logically may be compared with the theological formula according to which a single vital force is sufficient to produce all the observed phenomena of human life on this earth, and after the death of the bodily organism, to revive, and then persist as an individual entity through all eternity.

The writer ventures to suggest still another comparison, though aware that some may deem it fanciful: The constant quantity c measures that change in the value of x which corresponds to the duration of life in the body, while the constant b measures the change in x that corresponds to the time elapsing between "death" and the resurrection; and the variable x is the quantity the unlimited extension of which gives the infinite branch of the curve, this being the one that corresponds to the immortal part of our existence. So, extracting the square roots, we have for the value of y in every position the product of the three factors, \sqrt{x}/m , $\sqrt{x-b}$, and $\sqrt{x+c}$; and these may be considered as corresponding to the "spirit, and soul, and body" which St. Paul seems to have believed constitute man as a whole. Also, it is obvious that while the relative strength of these components varies as between individuals, we may choose other numerical values than those previously assigned to the constant quantities in the mathematical equation; the result being an alteration in the relative magnitudes of the different parts of the diagram, but no change from the essential characteristics of the curve as already described.

It would be absurd to claim that this equation is *proof* of the doctrine of a sentient individual existence for man after death; the term "man" being intended to include "woman," Mohammedan doctrine to the contrary notwithstanding. But the writer does submit it as important, in this respect that it offers a close mathematical analogy, which he is not aware has been claimed previously to

exist (though the equation itself is not new); and that it is of far greater value as such analogy than are the growth of a plant from seed or the metamorphosis of insects, whatever *their* value may be. Inasmuch, however, as those puerile analogies have been insisted upon, the first by the "Apostle to the Gentiles," and the second by numerous theologians of later ages, the one still being cited at a large percentage of the funeral services held in civilized countries today, and the other semi-occasionally mentioned in the pulpits of christians of all denominations, it does seem to the writer that the equation offered and described in preceding pages is worthy of widespread attention. It offers the only close analogy yet discovered in the field of pure scientific reasoning to the doctrine of a resurrection of the body; and fairly may be commended to theologians of all sects as a good illustration of what they believe to be an important truth:—if "this, and nothing more."

* SECOND SECTION.

The matter on the seven and a half pages next preceding this paragraph was printed separately from that which follows, and a copy of the former sent to each of thirty-three clergymen in this city, accompanied by the statement that "the author would be pleased to know that those to whom it is submitted deem it worthy of a wider circulation." The indicated division was made for the reason that what follows involves a little higher order of mathematical thought than was employed in the earlier presentation of the subject, though in Hutton's "Course of Mathematics" the imaginary unit and its powers are treated of on the very next page after the one which contains the statement that "no quantity can be found which, when raised to an even power, can give a negative result."

The author aimed at a mathematical treatment of the subject which would not be above comprehension by an average graduate from a Chicago High School. He did this because he hoped that each of the gentlemen would understand it as a result of careful reading, but in this respect he was mistaken. Some of them expressed regret that they were not familiar with the line of reasoning; and not one of the number offered any real criticism of the effort to point out a "Mathematical Analogy to Death and the Resurrection." So, the essay is presented in more complete form, without any such commendation as was hoped for, but also without fault finding. It would not be fair in this case to claim that "silence gives consent."

The author, however, does feel it to be his unpleasant duty to enter a mild protest against the claim by any one to be called "an educated man" if he does not know enough to enable him easily to follow out the line of thought presented on preceding pages. Mathematics constitute such an important part of the science of logic that one well may doubt ability to reason correctly on any abstruse subject by one who has not climbed up the ladder as far as the extraction of the square root in Algebra, and the comparing of right lines drawn in a circle for the study of Plane Trigonometry.

If we let c denote the diameter, then the equation for the circle (page 6) may be written:

$$y^2 = cx - x^2; = x(c - x).$$

Making $c = 10$, assigning to x successive values from zero to 10, and performing the multiplication, we shall have the corresponding values of y^2 , as in the third column of the following table:

x	$c - x$	Products.	y Values.	
0	+ 10	0	0	0
+ 1	9	+ 9	3	1.8
2	8	16	4	2.4
3	7	21	4.58	2.75
4	6	24	4.9	2.94
5	5	25	5.0	3
6	4	24	4.9	2.94
7	3	21	4.58	2.75
8	2	16	4	2.4
9	+ 1	+ 9	3	1.8
10	0	0	0	0
11	- 1	- 11	3.32 i	1.99 i
12	2	24	4.9 i	2.94 i
13	3	39	6.24 i	3.75 i
14	4	56	7.48 i	4.49 i
15	5	75	8.66 i	5.20 i
16	6	96	9.8 i	5.88 i
+ 17	- 7	- 119	10.91 i	6.54 i
etc.	etc.	etc.	etc.	etc.

Extracting the square root of each of these products we obtain the values of y for the circle, as in the fourth column, these being the

distances from the horizontal axis to several points in the curve, above and below that axis. Now, if each of these quantities thus denoted by y be multiplied into 0.6, the results will be those given in the fifth column, which are the values of y in the ellipse the principal axes of which are in the ratio of 6 to 10, as represented in the diagram on page 7.

If we take m to denote the ratio of the principal axes in the ellipse, we shall have, for that curve:

$$y^2 = m^2 \cdot x \cdot (c - x); \text{ or } \pm y = m \cdot \sqrt{x \cdot (c - x)}.$$

which becomes the equation for the circle when m equals unity.

It is evident that if we assign to x any values greater than c , which in the present instance is assumed equal to 10, the resulting values of y^2 will be minus quantities, which can not have real roots. But, we may consider any particular value of $-y^2$ as equal to plus y squared, multiplied into minus unity, that is $-y^2 = y^2(-1)$; and then also we may write its square root as equal to $\pm y \cdot \sqrt{-1}$, the expression, $\sqrt{-1}$, denoting what is called "the imaginary unit," and often is represented by i . With this notation the latter part of the table gives, in the fourth column, the results for the equilateral hyperbola, and in the fifth column those results multiplied into 0.6, which we have assumed as the value of m for the ellipse in the cut on page 7.

These products of an actual quantity into an imaginary one might be rationalized by assuming the difference between c and x to be a positive quantity, whichever of those two be the greater, or by regarding m^2 as negative in the hyperbola while it is positive in the ellipse. The truth is that in analytical researches it now is preferred by mathematicians to regard the square of the ratio of the minor axis by the major axis, which we denote here by m^2 , as negative for the ellipse and positive for the hyperbola. To adopt this would be simply to change our equation to:

$$y^2 = m^2 \cdot x \cdot (x - c); \text{ or } \pm y = m \sqrt{x \cdot (x - c)}.$$

It is not difficult to state a satisfactory reason for this convention, which might be thought arbitrary unless explained: The quantity m^2 also is equal to $e^2 - 1$; and e , the eccentricity, is greater than unity for the hyperbola, while it is less than unity for the ellipse, and reduces to zero for the circle.

The statements made in the last fifteen lines are added only for the purpose of precluding any possible objection that otherwise might be raised to the effect that the author is not well up in "Conic Sections" because he does not treat them according to the formulæ laid down in the books. The line of thought to which this additional discussion is intended to lead up is one which recognizes the supposition that the imaginary unit may be the factor the equivalent of which, in the equation of human life, distinguishes the purely spiritual from the corporeal part of our existence.

First of all, let us look at the features of correspondence with the line of thought as developed in the eight pages which were first sent out; this on the supposition that some satisfactory relation afterward may be discovered between the technically named "imaginary unit" and an actual spirit existence apart from the body. We have the ellipse, as described on page 7, corresponding approximately to the progress of human life from the cradle to the grave, and then an immediate starting up in the value of y , to give the hyperbolic curve, which (page 8) continually widens out with every increase in the value of x , the one coördinate becoming infinite when the other is so. The analogy here is to an eternal existence of the spirit after it leaves the body, but without any suspension of spirit life, or of manifestation of power, between death and a resurrection of either natural or spiritual body. The "grave" component, $\sqrt{x - b}$, (page 11, line 24) drops out from the equation given on page 8, and we have $c - x$ instead of $c + x$, with m becoming a multiplier instead of a divisor on the right hand side of the same equation. The last-named consideration simply is one of terms, because m may represent either a stated number or its reciprocal, so that the only essential change from the equation of page 8 to the one of page 14 consists in the making of b equal to zero while we retain its accompanying x ; and this means but that the after-death portion of the curve widens out a little less rapidly in the first case than in the second.

Next, we may consider the fact that the table on page 13 can be extended upward as well as downward. If, in measuring to the left from D, in the diagram on page 7, we take x equal to -1 , -2 , -3 , etc., in succession, the corresponding values of $c - x$ will be 11, 12, 13, etc., and the products are -11 , -24 , -39 , etc., exactly the same as those in the lower part of the third column in the table.

Hence, the values of y are precisely the same for equal distances to the left from D, and to the right from A, in the diagram; and the ellipse may be regarded as situated between two equal and opposite hyperbolas, each of which has DA (equal to c), for its major axis, one stretching out toward infinity to the left, and the other stretching out toward infinity to the right. Therefore, if the quantities in the extended table are analogous to different phases in the existence of man, they point to an existence previous to his birth as well as to one subsequent to his decease, indicating that the spirit is not called into being with the first animation of the body any more than it is extinguished at the death of the body.

This view is in harmony with the idea, which is probable in a scientific sense though far from being proven, that the sum total of force in the universe is constant, if that of matter be so. Also it harmonizes with that small part of "theosophic" doctrine which declares that the vital principle, the essential "Atman" which is held to be loaded with the "Karma," exists before the body is formed as well as persists after its dissolution. But the notion is at radical disagreement with the theosophic conception of a long series of sentient existences for the one mentality, and even more inconsistent with what is declared by Mrs. Besant to be an integral part of the theosophic doctrine; namely, that these sequent phases of existence are separated by long intervals of "sleep." The analogy rather would be with a gradual ingathering of vital force from the fund, which is infinite in extent while the process is infinite in duration, and with the theory that after a temporary concentration of that gathered force into bodily form it gradually dissipates into the vast fund, though the identity is not absolutely lost in any assignable period of time, because any such period falls short of infinity. Hence, the absolute Nirvana of Hindoo philosophy could not be attained by any one of those who aspire after it, so long as the Universe endures, unless the term of its existence be eternal.

According to the theory of Helmholtz, which many scientific investigators now are inclined to consider the most probable basic theory of the constitution of matter, the material atom simply is a whorl in an ether which pervades all known space, and must be supposed to be a perfectly elastic entity, which roughly may be likened to a jelly, though having no weight, and being in reality the only imponderable substance in Nature—if we are justified in speaking of it at all as

a substance. This ether is the medium that transmits, or through which are transmitted, vibrations from the constituent particles of one mass to those of another. And if we accept the whorl theory it follows that we must regard the material atom as nothing more or less than a differentiated ether, just as we must consider the protoplasm which is the fundamental material of organic life to be a differentiation from the inorganic atom. We then may fall back on the language of the calculus, in the absence of anything better, and state the inorganic and protoplasmic forms as the first and second differentials of the vast etheric integral—the “Constant” of which will be the “Great First Cause,” though we can not hope that scientific investigation ever will enable us to ascertain whether that Great Cause be personal or impersonal. Now, if we suppose that the employment of the imaginary unit corresponds wholly or in part to the process of differentiation, and that the ether itself is essentially positive, the inorganic form of matter must be deemed imaginary positive, and the protoplasmic form negative (because $i^2 = -1$). The protoplasmic then will be rational, and will need a negative multiplier to bring it into the state of the integral. It is well known that in celestial mechanics we have:

$$\text{Force} = \text{Mass} / r^2; = - d^2 s / dt^2.$$

If we dispense with the simile of differentiation, as being above the comprehension of those who have not had the advantage of a course of mathematical study which appears to be exceptional, we may conceive the following parallel, which can be drawn without resort to the language of the calculus: Starting with the previously stated conception that the state of the ether is essentially positive, and multiplying by the imaginary unit four times in succession, we shall reach the positive again, and may conceive the several results to correspond to conditions in the grand scheme of Nature, thus:

+ 1	corresponds to Ether.
+ $\sqrt{-1}$	“ “ Inorganic matter.
– 1	“ “ Organic matter,
– $\sqrt{-1}$	“ “ Unknown. (?)
+ 1	“ “ Spirit entity.

The last four expressions in the first column represent the “four roots of unity,” being the analytical values of radius unity at angular distances of 90°, 180°, 270°, and 360° from the origin.

In regard to this comparison we remark that one well may hesitate at assigning a parallel to the fourth mathematical term. If the square root of minus unity be imaginary, its negative hardly is conceivable, and we may suppose it corresponds to some to us totally unknown mode of existence. Also, the third and fifth terms suggest the taking of the negative and positive values of y as collating with the inferior and superior parts of man's nature, the animal and the spiritual, represented by positions below and above the horizontal axis. To accept the latter idea would be to discard the suggestion (pages 8 and 10), about goodness and wickedness, and consider the whole of the varying breadths of the figure, measured in a perpendicular direction for successive values of x , as representing the measures of total force at different epochs in the term of our existence. Then follows the thought that the fifth term in the series is not necessarily identical with the first. They numerically are equal, but the last is the fourth power of the second, and a potential conversion is involved in a return from it to the original quantity if not to the original form. These analogies, and deductions from them, fitly may be described as "reasoning in a circle," but the process is not necessarily vicious on that account, though it can not be denied that, at least in one sense of the word, it is largely "imaginary."

It, however, is possible to conceive of the spirit essence returning to the ether condition, if not directly then, by another conversion not indicated in the preceding table of supposed changes. Then, in sequence to the line of thought sketched briefly in this section, we even may indulge a flight of fancy to the extent of supposing that man is a microcosm of the macrocosmic universe in a far wider sense than hitherto has been understood in the use of that phrase. One talks of the "eternity of matter," but that simply is because within the limits of human experience the elasticity of the atom is permanent, and rates of vibratory movement of atom or molecule vary only with temperature. It is legitimate to imagine that the duration of existence of an atom is "eternal" only in the sense that it lasts longer than the planet, as that of the earth compared with the life of an organism on its surface, and as the life of the organism with that of one of the countless millions of cells the aggregation of which makes up the form of animal or vegetable. Hence, one may venture to think it not impossible that the pulsations of the ether vortices which we call material atoms may decrease to the zero of pulsative activity in some portions of space, while more active in other regions,

in obedience to what we feel forced to believe is a law—that the sum total of energy in the whole of Nature's vast domain is a constant quantity. In this view of the case we may speculate on the possibility of a single solar system, or millions of such systems, springing into existence out of nothing (in the sense in which the ether may be spoken of as "nothing"), and after the lapse of millions of ages dying again into the same kind of nothingness, while the operation of creative force on the very same kind of nothingness is in progress in other portions of infinite space. This is a more comprehensive sweep, if not a more daring one, than even is the expansion of the nebular theory by its author into the thought that the universe as known to us may be only one out of a vast series, each of which is evolved from the material ruins of an immediately preëxisting one.

According to the enlarged view here suggested, though not insisted on, the life of a vegetable or animal cell, that of the aggregation of cells which constitutes a unit of animated existence as seen by the unaided eye, the existence of the planet whose surface is the theater of such vitality, that of the system to which the planet belongs, that of the clustering molecule and even of "the ultimate atom": each and all may be regarded as only temporary phenomena, the time occupied by the exhibition of which is no greater in comparison with an eternity of duration than is the massing of vapor drops in the atmosphere and the collection of electric force due to the gathering of those vapor specks into raindrops that form a passing shower.

We can reason strictly and surely in regard to the protoplasm which is the physical basis of all life, animal as well as vegetable, and of human life equally with that of the lowest forms of animated existence, that it always is dying, and could not live unless it died: such death involving a resolution into its mineral and lifeless constituents, which subsequently are so scattered and diffused that the recombination of the same material into a consequent individual entity identical with the previous one, is highly improbable if not absolutely impossible. And so we may reason toward the theory that those constituents themselves ultimately resolve into the universal ether. To think along similar lines in regard to the vital force is not more illogical than are speculations about the supposed possibility of a fourth dimension in space, and hardly can it be more conclusive. But it may be worth while to note that the ability to indulge in such speculative imaginings furnishes a by no means weak argument in favor of the belief that the human spirit is immortal.

It is fair to suppose that: (1.) The Christians of the Apostolic age fully expected that many of their own number would live till the "Second Coming," and would welcome their Lord in company with those who had "fallen asleep." (2.) That when several years had elapsed without bringing the desired consummation some began to doubt, and not far from a quarter of a century after the Crucifixion Paul wrote to the Corinthians with an express purpose of answering some among them who said "there is no resurrection of the dead": these objectors reasoning to the effect that the bodies of many of the witnesses must have become completely disintegrated, rendering impossible such a resurrection as they had been led to expect, and Paul undertaking to show, for the first time, that such objection was not a valid one, the body that is buried being "natural," while the one to be resurrected will be "a spiritual body." (3.) That notwithstanding this explanation the general belief in the churches during many centuries seems to have been in a reanimation of the body that was buried, and this appears to have been the principal reason why the churches have systematically frowned on cremation. Within the last quarter of this century a distinctly forward step has been taken by a few clergymen in admitting that the statement of the case made by St. Paul in his first Epistle to the Corinthians is not inconsistent with belief in the possibility of resurrection from the ashes of a body that has been cremated.

The reanimation of many millions of human bodies, each of which when "raised up" shall be composed of the very same material atoms and molecules that made up its substance in a former life, would be a miracle indeed: involving what well may be designated as a physical impossibility. The doctrine of "the resurrection of the body," on the plan stated by St. Paul, is not open to the same sweeping kind of objection; but it does not appear to the author to be in line with the average trend of modern scientific thought. Whether or not the Pauline resurrection of a spiritual body, if it occur at all, will be simultaneous, and at the sound of an archangel's trumpet or otherwise, scientific research is powerless to find an answer. But the truly scientific man hardly will dare to assume the responsibility of asserting that such resurrection is impossible—knowing, as he does, how easy it is to find instances of seeming folly in one age becoming recognized as wisdom in a succeeding one: and vice versa. It was remarked, a long time ago, that the student of science ought not to feel sure of anything in regard to which there is a reasonable doubt.



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(1798-1857.)

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THE TOMB OF VIBIA.¹

AN IMPORTANT MONUMENT OF DIONYSIAN MYSTERIES.

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THE triumph of the Orphic religion, which promised a better Beyond, began in the Hellenic world with the ascendancy of the Eastern Greek and Ionian culture. The once pious belief in the ancient gods had decreased among the people and had vanished, for the greater part, among the educated. The condition of the Ionians in the sixth century was desperate. The nations of the East tottered, kingdoms perished; nowhere was any secure footing, nowhere salvation for this life. Besides, their freedom was gone. Passionately seeking peace for their tortured souls, they clung to the Orphic promises for the future.²

But many surrendered themselves to the joys of this world, to the measureless voluptuousness that is engendered by pessimism; and indeed the earliest vestiges of a materialistic conception of life among the Greeks point to Ionia. This remarkable aberration of the Greeks as a people has been ignored or underrated by the historians of Greek ethics and philosophy, because it manifested itself rather in practical life than in theories. As the monument which I

¹ Translated from Ernst Maas's *Orphus*.

² The oldest and for this reason important testimony for the spreading of the Orphics over the region of Ionian culture is given by Xenophanes of Colophon (about 538 B. C.) in the Scholia to Aristophanes' *Knights*, v. 408: "They called 'Bacchus' not only Dionysus, but they called 'bacchi' all those who performed the orgiastic rites, yea even the branches carried by the initiated." Thus Xenophanes in his "Silli" records that "pine-trees stand there densely around the house." (Codex Venet.: "a pine-tree"; Lobeck I., p. 308A: the bacchi of pine-trees densely around the house; Wachsmuth, *Sillographi*, 2. edit., p. 188: the "bacchi" of pine-tree.) Surely the expression "bacchi" (*βάκχοι*) refers to Dionysian mysteries; undoubtedly not to branches carried in the hand or placed around the head, but to branches which used to be placed around or before the house.

propose to discuss is related not only to the Orphic religion but also to that hedonistic materialism, the entire matter must be explained briefly. The tomb is by some accident situated in the vicinity of the Christian catacombs without being connected with them; but this is no argument for the assumption which is sometimes made that it is Christian.

The head priest of Sabazius¹ and other gods, a certain Vincentius, had erected in Rome a family sepulchre for himself and his wife Vibia. The inscription reads: "Vincenti hoc (ostium) quætes quot vides; plures me antecesserunt, omnes exspecto. Manduca bibe lude et veni at me; cum vives, benefac; hoc tecum feres."

"Numinis antistes Sabazis Vincentius hic est,
qui sacra sancta deum mente pia coluit."

[“This is the entrance (which [*quod*] thou seest) of the rest (*quietis*) of Vincentius. Several have preceded me, all I expect. Eat, drink, frolic, and come unto me. As long as thou livest thou shalt act righteously (*benefac*): this thou wilt take with thee.

“This is Vincentius, head priest of the god Sabazius,² who revered with pious mind the sacred rites of the gods.”]

Vincentius' maxim of life expressed in the inscription of the tomb, reads: "Eat, drink, frolic and come to me. As long as thou livest, thou shalt act righteously: this thou wilt take with thee." The dead is introduced saying: Who shall come to him into Elysium after a life full of material joys? The individual behest appears not to be directed to any definite person. Elsewhere, indeed, it is not the reader of the inscription, but the survivor, who addresses the departed: "I pray, prepare unto me an hospitable dwelling there," and from the grave comes the answer: "Come unto me; everything is prepared;" but there it is the inquirer that is indicated. It seems that in the case in hand the addressed are not the priests of the mystic rites of Sabazius, but any reader whatsoever of the inscription.

The dead exhorts: eat, drink, frolic. Parallel to this, though differing widely, is an old passage which even the first editor of the inscription has remembered. It is the so-called inscription on the tomb of Sardanapalus, a monument which existed solely in the imagination not of the Assyrians but of the Eastern Greeks and about which, although it is only the expression of an idea, there has been much discussion.

¹ Sabazios is one of the names of Dionysus, or Bacchus.

² The form "Sabazis" is shortened from Sabazius; so we find "Sabos" in Hymn. Orph. XLIX., verse 2, etc.

According to Aristobulus,¹ this is the original of the maxim of Vincentius: σὺ δέ, ὦ ξένη, ἔσθιε καὶ πῖνε καὶ παῖζε, ὥς τάλλα τὰ ἀνθρώπινα αὐκ ὄντα τούτου ἄξια (meaning the gesture of ἀποκροτεῖν) "O stranger, eat, drink and frolic, since nothing else in human life is worth 'this' [i. e., a snap of the finger.]"

Here are some parallel passages which express the same sentiment :

Ion of Chios addresses (Athenaeus X. 477D = Fragm. 1) Dionysus :

χαῖρε· δίδου δ' αἰῶνα, καλῶν ἐπιήρανε ἔργων,
πίνειν καὶ παῖζαν καὶ τὰ δίκαια φρονεῖν :

["Be greeted ! grant long space of life, furthering noble deeds, to drink and to sport and to mind just things."]

The second line we find in more ancient, probably sacred, poetry ; this becomes evident from Empedocles, v. 415 f.

ἦν δέ τις ἐν κείνοισιν ἀνὴρ περιώσια εἰδώς
παντοίων τε μάλιστα σοφῶν ἐπιήρανος ἔργων·

["But among them there was a man of immense knowledge (knowing immense matters) and furthering (accomplishing) manifold very wise deeds."]

In Ion fr. 2. (Athenaeus X. 463. B. v. 7 f.) the admonition is repeated :

πίνωμεν, παίζωμεν, ἴτω διὰ νυκτὸς δοιδή,
ὀρχεῖσθω τις· ἐκὼν δ' ἄρχε φιλοφροσύνης·

["Let us drink, frolic, let song resound all night long, let some one dance ; willingly (gladly) begin (to indulge in) gaiety."]

But even this was not the original of the inscription on the tomb of Sardanapalus ; the original inscription was by no means harmless, but monstrously materialistic. It read : "Eat, drink, indulge in love, for nothing else is even worthy of contempt." The frivolity contained in these words appeared to be too strong in the eyes perhaps of many contemporaries and undoubtedly of later generations. By changing the third of these commandments the materialistic character of the maxim was preserved and adapted to feebler spirits. This modified form of the maxim of the debauchee of the Greek legend which has preserved but very little of the historical King of the Assyrians was also extant.

The Assyrian Asurbanipal was fated to become the carrier of that moral—or immoral—ideal which the inclination and desire of the Greeks in Asia Minor needed then for their own practical life.

¹ *Apud Strab.* XIV., p. 672; *Athen.* XII., p. 530A; *Arrian Hist. Alex.* II., 5, 4.

"How long will you revel?" an old Ionic poet warned his fellow-countrymen in time of danger. And who is not impressed by Herodotus' description of the Ionic catastrophe, as if there was a host of little imitators of Sardanapalus who indulged to the last moment, even upon the ruins of their sinking homes, in sensual vices without stirring a finger for freedom.

"They have learned their follies (*ἀφροσύνη*) from the Lydians," Xenophanes rebuked them (fragm. 3); and Ninus was considered in early periods the very type of a "city of folly."

The beginning of the fatalistic conceptions date back to the time of Homer; the serene world depicted in the epos of Homer keeps aloof intentionally each disquieting thought of death and the hereafter in order that it may enjoy with undiminished vigor the present. Akin to this hedonistic time is, at least in some features, the Augustinian epoch; still more akin to it is the time of the Italian Renaissance which has taken such an important part in creating the ideas and sentiments of our days.

For a procession with Dionysus and Ariadne the following verses, typical of his age, were composed by Lorenzo the Magnificent: "How beautiful is youth that flies everywhere; who wants to be merry, let him be merry: there is no certainty about the day to come."

As in that epoch of modern history, so during the time of the downfall of the Ionian Cities man freed himself from the restrictions of patriotism, of religion and of the ancient customs; this came about not through any fault of his, but rather through historical necessity. And as the element of individual culture was handed on by the Italians to the other nations of the Occident, so it has been given over before, in the fifth century B. C. by Ionia to the West, especially to Athens.

Only the beginnings of this development are defined in the Homeric view, and only in the chaos of perishing Ionia, within the sphere of Ionic licentiousness, could the prototype of Sardanapalus-Asurbanipal (like Hercules in subjection to Omphale) have been created in the form of fiction besides many other clearly defined types, especially Croesus. Similarly in certain Arabic tales a prince satiated by all enjoyments seeks recovery from his surfeit and his melancholy, but the fable here takes a somewhat different turn.

J. Burckhardt, in his classical work: *Die Kultur der Renaissance*, 4. edit. II., p. 240 ff. says:

"Somewhere the poetry of the Renaissance had to depict the wild egotism which had become insensible to dogmatism

Now Pulci draws the figure of the giant Margutte who, in the face of every religion, unreservedly professes the most hedonistic egotism and all vices and who claims but one virtue: that he had never committed any treason Margutte belongs necessarily to the poetry of the world imaged in the fifteenth century In other poems also giants and demons, heathens and Mohammedans, have put in their mouths what no Christian knight is permitted to say."

These epochs interpret one another.

Æschylus already knew the defiantly egoistic story of Sardanapalus and made an effective use of it in his drama "The Persians." The most powerful scene in this glorification of the victory of the Greeks over the Persian intruder Xerxes is the appearance of the ghost of Darius, denouncing the folly of Xerxes; the spectators must have been deeply moved by Darius's condemnation of the expedition of Xerxes as an act of insolence and godlessness.

Darius counsels two ways of salvation: the avoidance of an expedition of revenge against Greece and the refusal to renounce even in misfortune, a life full of pleasure.

Darius censures Xerxes and advises him, like the most pious and most patriotic Greek, henceforth to leave the Greeks in peace; but the maxim at the conclusion of the scene is as un-Hellenic and realistic as possible; it is Sardanapalic. It seems doubtless that Aeschylus intended to depict the king, who bears otherwise the character of a Greek, as an Oriental, as a Sardanapalus, in the lines 840 ff.: "But ye, O aged men, be merry though in the midst of troubles, and indulge yourselves in pleasure day by day, since wealth is of no avail to the dead."

But it is not only the hedonistic maxim which is the same in the epitaph of Sardanapalus and in the drama of Æschylus. As Sardanapalus utters his admonition from the grave, so Darius conjured from his tomb by the chorus addresses the members of the chorus, representing Persian grandees and satraps. The dead kings are earnest and true: Darius and the Assyrian have tasted the life after death, before they give counsel to the living. But the legend must be older than Æschylus: he is the oldest witness for Athens, but not the only one. Aristophanes in his comedy *The Birds* introduces a messenger of the Athenian Demos whom Peisthetæros receives in the airy city of the birds with an exclamation of surprise, saying "Who is this Sardanapalus here?" The poet must have believed that his Athenian audience was familiar with the name and connected therewith some definite idea. The Sardanapalus legend accordingly was in those days not unknown in Athens.

Herodotus in one place promises to tell the story of Sardanapalus and the destruction of Nineveh, but did not keep his promise; if it was ever put into writing, it was certainly not published. It is possible, however, that the people became familiar with the subject of the Ἀσύριοι λόγοι through the public lectures which Herodotus is known to have given. Others who quote the Sardanapalian sentence did not content themselves with mitigating the frivolity of the inscription; they idealised the type, each after his own fashion.

Here are instances. We read (Epigr. 1129, Kaibel):

“πῖνε” λέγει τὸ γλῦμμα “καὶ ἔσθιε καὶ περικεῖσο
ἀνθεα · τοιοῦτοι γινόμεθ’ ἐξαπίνης.”

[“Drink, says the engraved inscription, and eat and deck thee with flowers. On a sudden we become such (i. e., revellers).”]

The epitaph of Bacchidas (Athen. VIII. 336. B.) expresses this still more vigorously and reminds us of Aeschylus, Persae, v. 840 ff.:

πῖν φαγὲν καὶ πάντα τᾷ ψυχᾷ δόμεν·
κῆγῳ γὰρ ἔστακ’ ἀντὶ Βακχίδα λίθος·

[“To drink, to eat, and to let our soul indulge in everything; I stand here, a stone instead of Bacchidas.”]

See also *C. I. L.* VI. 3, 17985a (19683) *animulam colui nec defuit unquam Lyaeus*: “I cultivated my little soul, and never Lyaeus (i. e., Bacchus, deliverer from care; wine) was missing.” Similarly the epigr. 267 (Kaibel).

Life a Feast: Bion (Stab. Flor. V. 67, Lucratius III. 936 f. Horace, Sat. I. 1. 117 ff. Heinze: On Horace as an Imitator of Bion p. 20 f.). 614 Kaibel (Rom):

εὐφρανθεὶς συνεχῶς γέλασας παίξας τε τρυφήσας·
καὶ ψυχὴν ἱλαρῶς πάντων τέρψας ἐν δαιδαῖς
οὐδένα λυπήσας, οὐ λοῖδορα ῥήματα ῥίψας,
ἀλλὰ φίλος Μουσῶν Βρομίου Παφίης τε βιώσας κτλ·

[“Cheerful forever, laughing, frolicking and living luxuriously and joyously delighting the souls of all by songs, afflicting none nor casting about slanderous words, but living as a friend of the Muses, of Bromios and of the Paphian goddess (Aphrodite)].

Thus, the Orient here has again been Hellenised, as was done in many similar instances and these modifications of the inscribed maxim have also been preserved, especially in epitaphs, through all phases of the history of antiquity, so that side by side with absolute materialism its modifications and manifold contrasts continue to exist. Here are some instances.

It is interesting to observe how the priest of Sabazius has appropriated to himself one of the Hellenised forms of the Sardanapalic maxim, even with energetic polemics. The words of the inscription of Vicentius "As long as thou livest, act well; this thou wilt take with thee (after life)," have their analogies in the variations of the maxim of Sardanapalus, though used with an essentially different meaning.

Thus the maxim had been transformed already in the fifth century: "Know that thou art mortal; therefore indulge in the delights of feasting; naught thou wilt have in death. For I too am cinders who have been once the king of mighty Nineveh. Mine is but that which I have enjoyed in eating, drinking, embracing; the blessing of fortune I have had to leave behind me."

In early days protest was raised also against this form of the maxim. It has not been abolished which is proved by the epitaphs in Greek and Latin, and many passages in literature. Also Vincentius protests; he declares: Thou shalt act well, as long as thou livest; thy good deeds accompany thee into the after life where they prove their value in peculiar wise." The belief is extraordinarily ancient; the type is the common possession of all civilised nations.

In the Vedas the dead are addressed: "Walk on the old paths on which our ancestors strode . . . Unite thyself with thy forefathers and with Yama, with the reward for thy sacrifices and good works in the highest heaven."¹

Many popular legends of the Germanic and Romanic tribes are based upon the presupposition that the good and the sinful deeds of a man are actually laid up in the "other world"; there everything is not only recorded but stored.

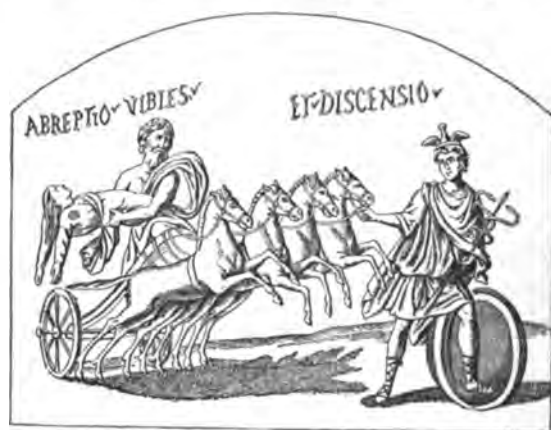
In pictures of Egyptian books of the dead we see, even to-day, how the deeds of the departed, represented as merchandise, are literally weighed on the scale by the judge of the lower world. According to the belief of modern Greeks this business is the task of one of the Archangels. In the Paulinian Apocalypse the Lord says to a punished soul: "Knowest thou not that a man's deeds, the good and the wicked, stalk before him, as soon as he has died?" Who would not be inclined to consider this image as typically Christian, if it stood alone. Who does not know the words of the heavenly voice (Revel. XIV. 13): "Blessed are the dead who die in the Lord from henceforth, yea, saith the spirit, that they may rest from their labors; and their works do follow them." But the use of this

¹ Oldenberg, p. 573 f.

beautiful allegory was not limited to the Christians (cf. Pindar, *Isthm.* III, 4 ff.; Plato, *Rep.* X. p. 614 c., *Gorgias* 524 e ff.; Lucian, *Catapl.* 24 ff.)

The inscription on the tomb of Vincentius must have originated in a narrow, definite sphere. We shall understand its spirit better if we consider the pictorial ornament of the tomb. It is a remarkable monument that is not yet sufficiently appreciated. The mural paintings represent with vivid and deep feeling the hopes and the expectation of the joys in the other world, cherished by the devotees of Sabazius.

Vibia, the goodly spouse of the Sabazius priest Vincentius, snatched away by the god of death, according to an ancient conventional scheme which was also employed in representations of



THE RAPE OF VIBIA AND HER DESCENT.

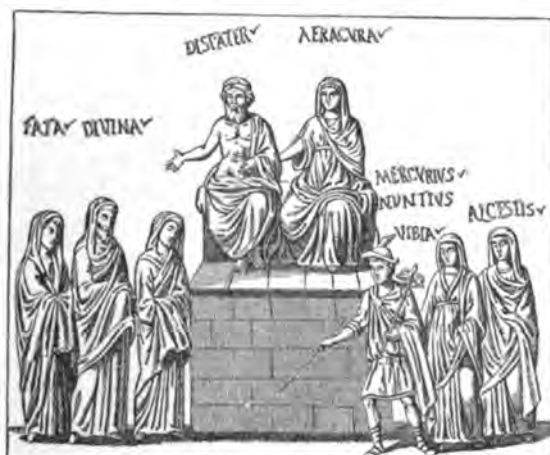
the rape of Proserpine—this 'abreptio Vibies' is the subject of the first image. The fundamental idea: the rape of death's bride, is as such, of course, no original one. Every woman who dies is wedded to Hades, according to ancient views. The idea that the God of death is thought of as driving in a chariot is Homeric, for Pluto is said "to drive his splendid team." Men and youths, after their death, enter the bridal chamber of Persephone. Both poetry (especially the *Cornelia-Elegy* of Propertius) and inscriptions on tombstones, reiterate this idea in countless variations.

The second picture represents Vibia conducted by Hermes to the three Fates, to receive their judgment, and passing by the throne of Dispatier and of Æracura (or Juno inferna), the god and goddess of the nether world. Vibia is accompanied by Alcestis, the

prototype of a true wife who has willingly sacrificed herself for her husband.¹

The doctrine of the departed souls' being conducted solemnly to the nether world is neither specifically Greek nor Orphic. Mani taught: "If death approaches the righteous, the 'primordial man' (*Urmensch*) sends to him a god radiant of light, in the shape of the 'leading sage'; three gods accompany the sage and carry the water-vessel, the garment, the fillet, the crown, and the wreath of light. With them the virgin approaches who resembles the soul of the righteous," etc.²

The Italian Renaissance adopted from Antiquity the notion of a mythological escort and employed it in art and poetry.³ Accord-



BEFORE THE TRIBUNAL OF THE RULER OF THE NETHER WORLD.

ing to the poem by Bernardo Pulci on the death of the older Cosimo, the latter is received in Heaven by Cicero, who likewise was called

¹ Probably Plato did more to immortalise the conjugal love of Alcestis than Hesiod and Euripides (*Sympos.* 7, p. 179C): "And when Alcestis had accomplished this deed, she seemed not only to men but even to gods to have fulfilled a work so noble, that the gods (who granted to but few of those who had performed many noble exploits, the boon that their souls could reappear from Hades) allowed her soul to come up from Hades, for they admired Alcestis."

This is evident in the inscription *C. I. C. III. 6336*, where the departed tells of herself: "My Asiatic home is (the island) Aphrodisias; on account of Piety, whose name I have honored. And I was that Alcestis who in olden times loved her spouse, and gods and mortals bore testimony of her chastity (*sophrosyne*)."

Propertius has v. 7. v. 63 ff. different types of conjugal love: Besides Andromeda and Hypomnestra his Cynthia dwells in Elysium conversing with others about their lives.—One remembers also Virgil and Dante.

² Cf. Kessler, Mani, p. 398 f.

³ Cf. J. Burckhardt, II. 4. p. 149 ff., 299.

"Father of the Fatherland," by the Fabians etc.; Nicolo dell' Arca, a clay-modeller, is welcomed there by Praxiteles, Phidias, and Polycletus. The Catholic Church has even nowadays not yet given up the allegory.¹

The three Fates (called *Fata Divina* in our picture) are the Moirai of the Greek nether world. But the middle Fate seems to be bearded and surpasses the others in stature. Which divine being does this figure represent? Perchance one of the judges of the nether world, Minos, Æacus or Rhadamanthys. It is impossible to think that it represents Sabazius whose consecrations Vibia like her husband must be supposed to have received. Besides, the entire feasting assembly of the pious Sabazius priests—seven per-



THE LOVE FEAST IN THE ELYSIAN FIELDS.

sons, among whom is Vincentius—is represented in another part of the great picture.

Probably inscriptions, such as "O unhappy fate which has taken thee from us!" ("*O Fatum infelicem, qui te nobis abstulit*") guide us to the right track. We may here be confronted with a male Fate, a "Fatus," as in the Vibia-picture!

Since the god of fate occurs not only on Roman but also on Greek monuments, one should not think of the origin of this type as Roman. Two Moirai at the side of Zeus or of Apollo Moiragetes (the leader of fates) may be noticed upon Delphic and other Greek monuments.

The fourth picture is divided into two sections. At the left Vibia is guided by the "Angelus bonus" to the "blessed," the "*bonorum iudicio iudicati*." The "Angelus" or even "the blessed"

¹ Cf. E. Zola, *Lourdes*, II. p. 124. R. Koehler, *Aufsätze*, p. 50 ff.

must not at all be considered to be of Christian or Jewish origin. The "*boni*" are, by euphemism, the inexorably severe inhabitants or judges of the nether world and appear as such also elsewhere, being otherwise called benign fates (*benigna Fata*), *Di manes* (the spirits of the dead) the indispensable gods (*θεοὶ χρηστοί*) etc.

The "good messenger" or Angel belongs to the ancient Greeks as well as to the Christians, which is a clearly proven fact. (Cf. *Indogermanische Studien* von Brugmann und Streitberg, I, p. 157, ff.; Plato speaks of the Angel of Elysium: Rep. X. 619 B; as for St. Michael as conductor of souls, see R. Koehler, *Aufsätze*, p. 51.)

At the right the blessed, with crowns on their brows, are resting in a flowery meadow: some feasting, among whom is Vibia;



THE SEVEN PRIESTS, VINCENTIUS AMONG THEM.

some playing dice. It almost looks like an illustration of Pindar's wonderful *Threnos* or of Virgil's *Nekyia*. By adorning his wife's tomb and his own with pictures, Vincentius believed that he would secure, for himself and his wife, who probably had died before him, the realisation of happiness in the life after death. This same idea has since remotest antiquity induced many to build their tombs during their life and to equip and decorate them for another life. Some of the Egyptian tombs containing painted images of the other world belong to the second millennium B. C., according to the views of scholars. The much more recent Greek celebration of mysteries aimed to represent to the initiated joyous expectations regarding the other world and thus to give visible form to the religious ideal of the believers. This has been preserved as far as to

the great festivals celebrated during the ages of the Renaissance and even, partially, to our days.

The beautiful saying that "their deeds accompany the dead," is also Greek and by no means a late conception ; the saying itself, its explanation through the picture of Alcestis, even the common conception upon which both are based, can, by means of a literary document, be proved with absolute certainty to have prevailed before the spreading of Christianity. They are certainly due to the poetry of the world beyond, and to the religion of the Greeks of the classical period. The Sabazius priests have derived the verses, the composition of the pictures, and their ethics from the Orphics.

THE OLD AND THE NEW MAGIC.

BY THE EDITOR.

THE very word magic has an alluring sound, and its practice as an art will probably never lose its attractiveness for people's minds. But we must remember that there is a difference between the old magic and the new, and that both are separated by a deep chasm, which is a kind of color line, for though the latter develops from the former in a gradual and natural course of evolution, they are radically different in principle and the new magic is irredeemably opposed to the assumptions upon which the old magic rests.

The old magic is sorcery, or, considering the impossibility of genuine sorcery, the attempt to practise sorcery. It is based upon the pre-scientific world-conception, which in its primitive stage is called animism, imputing to nature a spiritual life analogous to our own spirit, and peopling the world with individual personalities, spirits, ghosts, goblins, gods, devils, ogres, gnomes, and fairies. The old magic stands in contrast to science; it endeavors to transcend human knowledge by supernatural methods and is based upon the hope of working miracles by the assistance of invisible presences or intelligences, who according to this belief could be forced or coaxed by magic into an alliance. The savage believes that the evil influence of the powers of nature can be averted by charms or talismans and their aid procured by proper incantations, conjurations, and prayers.

The world-conception of the savage is long-lingering, and its influence does not subside instantaneously with the first appearance of science. The Middle Ages are still full of magic, and the belief in it has not died out to this day.

Goethe introduces the belief in magic into the very plot of Faust. In his despair at never finding the key to the world-problem in science, which, as he thinks, does not offer what we need, but

useless truisms only, Faust hopes to find the royal road to knowledge by supernatural methods. He says :

" Therefore, from Magic I seek assistance,
That many a secret perchance I reach
Through spirit-power and spirit-speech.
And thus the bitter task forego
Of saying the things I do not know, —
That I may detect the inmost force
Which binds the world, and guides its course ;
Its germs, productive powers explore,
And rummage in empty words no more ! "

The old magic found a rival in science and has in all its aspects, in religion as well as in occultism, in mysticism and obscu-



SAUL AND THE WITCH OF ENDOR. (After Schnorr von Carolsfeld.)

rantism, treated science as its hereditary enemy. It is now succumbing in the fight, although its last vestiges which prove toughest in their survival, viz., the notions of an animistic God-conception and an animistic soul-conception, are still haunting the minds of ultra-conservative people. In the meantime a new magic has originated and taken the place of the old magic, performing miracles as wonderful as those of the best conjurers of former days, nay, more

wonderful; yet these miracles are accomplished with the help of science and without the least pretense of supernatural power.

The new magic originated from the old magic when the belief in sorcery began to break down, viz., in the eighteenth century, which is the dawn of rationalism and marks the epoch since which mankind has been systematically working out a scientific world-conception.

Magic originally means priestcraft, being that which characterises the Magi, the Iranian priests. It is probable that the word



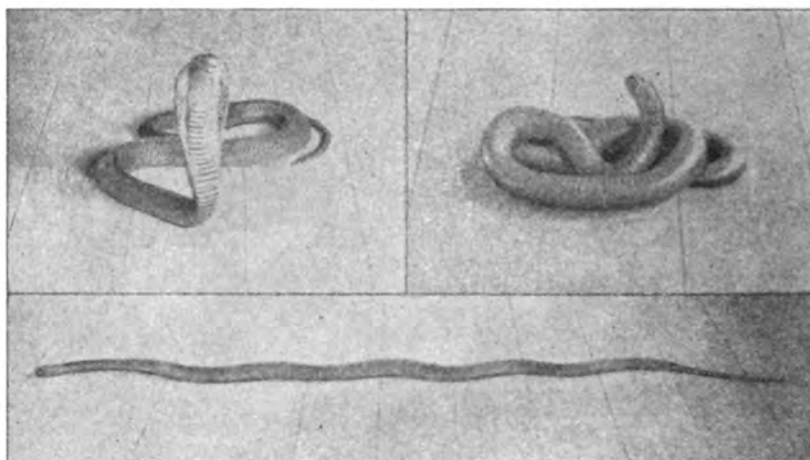
MOSES AND AARON PERFORMING THE MIRACLE OF THE SERPENTS BEFORE PHARAOH
(After Schnorr von Carolsfeld.)

is very old, being handed down to us from the Greeks and Romans who had received it from the Persians. But they in their turn owe it to the Babylonians, and the Babylonians to the Assyrians, and the Assyrians to the Sumero-Akkadians.

Imga in Akkad meant priest, and the Assyrians changed the word to *maga*, calling their high-priest *Rab-mag*; and considering the fact that the main business of priests in ancient times consisted in exorcising, fortune-telling, miracle-working, and giving out oracles, it seems justifiable to believe that the Persian term, which in its

Latin version is *magus*, is derived from the Chaldæan and is practically the same; for the connotation of a wise man endowed with supernatural powers has always been connected with the word *magus*, and even to-day magician means wizard, sorcerer, or miracle-worker.

In primitive society religion is magic, and priests are magicians. The savage would think that if the medicine-man could not work miracles, there would be no use for religion. Religion, however, does not disappear with the faith in the medicine man's power. When magic becomes discredited by science, religion is purified. We must know, though, that religious reforms of this kind are not accomplished at once but come on gradually in slow



THE EGYPTIAN SNAKE NAJA HAJE MADE MOTIONLESS BY PRESSURE UPON THE NECK.
(Reproduced from Verworn after photographs.)

process of evolution, first by disappointment and then in exultation at the thought that the actualities of science are higher, nobler, and better than the dreams of superstition, even if they were possible, and thus it appears that science comes to fulfil, not to destroy.

While the belief in, and the practice of, magic are not entirely absent in the civilisation of Israel, we find that the leaders of orthodox thought had set their face against it, at least as it appeared in its crudest form, and went so far as to persecute sorcerers with fire and sword.

We read in the Bible that when the Lord "multiplied his signs" in Egypt, he sent Moses and Aaron to Pharaoh to turn

their rods into serpents, that the Egyptian magicians vied with them in the performance, but that Aaron's rod swallowed up their rods, demonstrating thus Aaron's superiority. It is an interesting fact that the snake charmers of Egypt perform to-day a similar feat, which consists in paralysing a snake so as to render it motionless. The snake then looks like a stick but is not rigid.

Exorcism is first replaced by prayer, and prayer together with other religious exercises (such as fasts, ecstasies, trances, visions, asceticism, with its various modes of self-mortification) are practised for the purpose of attaining supernatural powers. A higher religion is not attained until the sphere of religion is discovered in



MODERN SNAKE CHARMERS. (From Brehm.)

practical morality and prayer is changed into vows. Then supplications of the deity to attain one's will are surrendered for the moral endeavor of self-control, disciplining the will to comply with the behests of the moral ought.

How tenacious the idea is that religion is and must be magic, appears from the fact that even Christianity shows traces of it. In fact, the early Christians (who, we must remember, recruited their ranks from the lowly in life) looked upon Christ as a kind of magician, and all his older pictures show him with a magician's wand in his hand. The resurrection of Lazarus, the change of water into wine, the miracle of the loaves and fishes, are according to the no-

tions of those centuries performed after the fashion of sorcerers, and the main thing in early Christianity is Christ's alleged claim to the power of working miracles. The last injunction which Jesus gives to his disciples according to St. Mark (xvi. 15-18) is this:

"Go ye into all the world, and preach the Gospel to every creature. He that believeth and is baptised shall be saved; but he that believeth not shall be damned. And these signs shall follow them that believe; in my name shall they cast out devils; they shall speak with new tongues; they shall take up serpents; and if they drink any deadly thing, it shall not hurt them; they shall lay hands on the sick, and they shall recover."

It is apparent that Christianity in the days when this was written bore a strong resemblance to what is now called Christian



CHRIST WITH THE WAND.

From a Christian Sarcophagus.¹

science, faith cure, or mental-healing; for the author of the above-quoted passage, the importance of which in the New Testament canon cannot be underrated, implies that any Christianity in which "these signs" are absent must be regarded as spurious.

Traces of the religion of magic are still prevalent to-day, and it will take much patient work before the last remnants of it are swept away. The notions of magic still hold in bondage the minds of the uneducated and half-educated, and even the leaders of prog-

¹ Reproduced from Mrs. Jameson's and Lady Eastlake's *History of Our Lord*, London, 1872, Longmans, Green & Co., Vol. I., pp. 347 and 349.

ress feel themselves now and then hampered by ghosts and superstitions. Thus Goethe makes Faust say at the end of his career :

" Not yet have I my liberty made good ;
So long as I can't banish magic's fell creations
And totally unlearn the incantations.
Stood I, O Nature, as a man in thee,
Then were it worth one's while a man to be.
And such was I ere I with the occult conversed,
And ere so wickedly the world I cursed."

To be a man in nature and to fight one's way to liberty is a much more dignified position than to go lobbying to the courts of the celestials and to beg of them favors. At the beginning of the drama Faust had turned agnostic and declared that we cannot know anything worth knowing, saying :

" That which we do not know is dearly needed ;
And what we need we do not know."

And in another place :

" I see that nothing can be known."

But now Faust is converted to science again, having found out that the study of nature is not a useless rummage in empty words. However, in the first and second decade of the nineteenth century the rationalism of the eighteenth century waned, not to make room for a higher rationalism, but to suffer the old bugbears of ghosts and hobgoblins to reappear in a reactionary movement. Progress does not pursue a straight line, but moves in spirals or epicycles. Periods of daylight are followed by nights of superstition. Faust (expressing here Goethe's own ideas) continues :

" Now fills the air so many a haunting shape,
That no one knows how best he may escape.
What though the day with rational splendor beams,
The night entangles us in webs of dreams.
By superstition constantly ensnared,
It spooks, gives warnings, is declared.
Intimidated thus we stand alone.
The portal jars, yet entrance is there none."

The aim of man is his liberty and independence. As soon as we understand that there are not occult powers or spooks that must be conciliated by supplications and appeased, but that we stand in nature from which we have grown in constant interaction between our own aspirations and the natural forces regulated by law, we shall have confidence in our own faculties, which can be increased by investigation and a proper comprehension of conditions, and we shall no longer look beyond but around. Faust says :

" A fool who to the Beyond his eyes directeth
 And over the clouds a place of peers detecteth.
 Firm must man stand and look around him well,
 The world means something to the capable."

This manhood of man, to be gained by science through the conquest of all magic, is the ideal which the present age is striving to attain, and the ideal has plainly been recognised by leaders of human progress. The time has come for us "to put away childish things," and to relinquish the beliefs and practices of the medicine-man.

But while magic as superstition and as fraud is doomed, magic as an art will not die. Science will take hold of it and permeate it with its own spirit changing it into scientific magic which is destitute of all mysticism, occultism, and superstition, and comes to us as a witty play for recreation and diversion.

It is an extraordinary help to a man to be acquainted with the tricks of prestidigitators,¹ and we advise parents not to neglect this phase in the education of their children. The present age is laying the basis of a scientific world-conception, and it is perhaps not without good reasons that it has produced quite a literature on the subject of modern magic.

It might seem that if the public became familiar with the methods of the magicians who give public entertainments, their business would be gone. But this is not the case. As a peep behind the scenes and a knowledge of the machinery of the stage only help us to appreciate scenic effects, so an insight into the tricks of the prestidigitator will only serve to whet our appetite for seeing him perform his tricks. The prestidigitator will be forced to improve his tricks before an intelligent audience; he will be obliged to invent new methods, but not to abandon his art.

Moreover, it is not the trick alone that we admire, but the way in which it is performed. Even those who know how things can be made to disappear by sleight of hand, must confess that they always found delight in seeing the late Alexander Hermann, whenever he began a *soirée*, take off his gloves, roll them up and make them vanish as if into nothingness.

It is true that magic in the old sense is gone; but that need not be lamented. The coarseness of Cagliostro's frauds has given way to the elegant display of scientific inventiveness and an adroit use of human wit.

¹ It seems that the anglicised form "prestidigitator" is preferable to the French word *prestidigitateur*.

Cagliostro, whose real name was Joseph Balsamo, was the last great magician in the old sense of the word. We may admire his genius and the fertility of his inventions, as we give credit to the cunning of a pickpocket, a highwayman, or a burglar. Though a brilliant mind, he was a pretender who began his career with forgery and ended his days (no one knows how) in a dungeon of the Roman Inquisition. The genius with which he practised his art was deserving of a better treatment, but he was a freemason, and



THE CONJURER. (By Prof. W. Zimmer.)

in those days that was a crime at Rome incurring the penalty of death.¹

Modern mediums are harmless successors of Cagliostro with analogous though considerably diminished pretensions; but their tactics have changed utterly; they try to shield themselves by disavowing all claims to the possession of magic, and concealing their tricks under the guise of a student's modesty. They play the part of inquirers and pretend to be confronted with phenomena not yet

¹ Cagliostro was actually condemned to death by his judges, members of the Inquisition, not for the frauds which he practised on the credulous, but as a freemason. The Pope commuted the sentence to imprisonment for life and had him deported to the fortress of San Leon. It is not likely that he received good treatment, for his wardens feared him on account of his supposed magical powers. His death seems to have occurred August 26, 1795.

explained, inviting the people to investigate certain psychological problems that seem physically inexplicable.

Modern magic begins with a number of brilliant pestidigitators, men like Jonas, Androletti, Carlotti, Pinetti, Katerfelto, Jacob Meyer (called Philadelphia), Rollin, the older Cosmus, Torrini, etc., all contemporaries of Cagliostro; but their fame was eclipsed by Jean Eugene Robert Houdin (1805-1871) who was followed by Robert Heller, the younger Cosmus, Robertson, Pepper, Bellachini, Mellini, Agaston, Becker, Lorgie, Rönner, Roberth, various members of the Basch, and no fewer of the Hermann families, Kellar, Maskelyne, and others.

The old magic still continues to haunt the minds of the uncultured, and will resist all exposés and explanations, until it is replaced by modern magic. For this reason we believe that the spread of modern magic and its proper comprehension are an important sign of progress, and in this sense the feats of our Kellars and Hermanns are a work of religious significance. They are instrumental in dispelling the fogs of superstition by exhibiting to the public the astonishing but natural miracles of the art of legerdemain; and while they amuse and entertain they fortify the people in their conviction of the reliability of science.

* * *

While the performance of magical tricks is an art, the observation of them and also their description is a science, presupposing a quick and critical eye of which very few people are possessed; and scientists by profession are sometimes the least fit persons to detect the place and mode of the deception.

How differently different persons watch the same events becomes apparent when we compare Professor Zöllner's reports of spiritualistic séances with those of other more critical witnesses. Professor Zöllner, for instance, writes (*Wissenschaftliche Abhandl.* Vol. III, p. 354) in his description of one of the experiments with Mr. Slade that Professor Fechner's chair was lifted up about half a foot above the ground, while Mr. Slade touched the back of it lightly with his hand, and he emphasises that his colleague after hovering some time in the air, was suddenly dropped with great noise. The event as thus described is mystifying. However, when we carefully compare Professor Fechner's account, we come to the conclusion that the whole proceeding is no longer miraculous, but could be repeated by prestidigitators. Fechner writes that at the request of Mr. Slade, he himself (Professor Fechner), who was slim and light, took the place of Professor Braune. Mr. Slade turned round to

Professor Fechner and bore his chair upward in a way which is not at all inexplicable by the methods of legerdemain. Professor Fechner does not mention that he hovered for some time in the air, but



PROFESSOR ZÖLLNER AND SLADE. (From Willmann.)

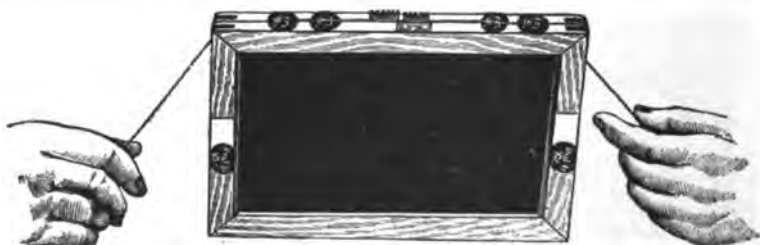
it is obvious that Mr. Slade made the two professors change seats because he would scarcely have had the strength to lift up the heavy Professor Braune.

Similarly, the accounts of the famous painter Gabriel Max,

who also attended some of Slade's séances with Zöllner, make the performances of the medium appear in a less wonderful light.

Mr. Carl Willmann, a manufacturer of magical apparatus at Hamburg, and the author of several books on modern magic, publishes a circumstantial description of Professor Zöllner's double slates used in séances with Mr. Slade, which are now in possession of Dr. Borchardt of Hamburg, who bought them with other objects of interest from the estate of the deceased Professor Zöllner. The seals of these plates are by no means so intact as not to arouse the suspicion that they have been tampered with. To a superficial inspection they appear unbroken, but the sealing wax shows vestiges of finger marks, and Mr. Willmann has not the slightest doubt that they were opened underneath the seal with a thin heated wire and that the seal was afterwards again attached to its place.

Professor Zöllner, the most famous victim of the bold medium, lacked entirely the necessary critique and became an easy prey of



THE OPENING OF SLADE'S SLATE BY MEANS OF A HEATED WIRE.
(After Willmann.)

fraud. One of his colleagues, a professor of surgery in the University of Leipzig, had entered upon a bet with Professor Zöllner that a slate carefully sealed and watched by himself could not be written upon by spirits; he had left the slate in Professor Zöllner's hands in the confidence that the latter would use all the necessary precautions. Professor Zöllner, however, not finding Mr. Slade at home, saw nothing wrong in leaving the sealed slate at the medium's residence and thus allowing it to pass for an indefinite time out of his own control, thinking that the seals were a sufficient protection. It goes without saying that his colleague at once cancelled the bet and took no more interest in the experiment.

The foot and hand prints which Mr. Slade produced were apparently made from celluloid impressions which could easily be carried about and hidden in the pocket. This explains why these

vestiges of the spirits were not of the size of Mr. Slade's hands or feet.

Mr. Willmann calls attention to the fact that the foot-prints as published by Professor Zöllner were made from feet whose stockings had been removed but a few moments before, for they still show the meshes of the knitting which quickly disappear as soon as the skin of the foot grows cold. Professor Zöllner did not see such trifles, and yet they are important, even if it were for the mere purpose of determining whether the spirits wear stockings made in Germany or America.

* * *

The accounts of travellers are as a rule full of extravagant praise of the accomplishments of foreign magicians; thus, the feats



THE SINGALESE CONJURER BEN-KI-BEY.
(After Carl Willmann.)

of our American Indians are almost habitually greatly exaggerated. The same is true in a greater measure of fakirs and Hindu magicians. Recent accounts of a famous traveller are startling, but the problem is not whether or not what he tells is true (for only a little dose of good judgment is sufficient to recognise their impossibility), but whether or not he believes his tales himself. The problem is neither physical nor historical as to the reality of the events narrated, the problem is purely psychological as to his own state of mind.

The primitive simplicity of the methods of the Hindu jugglers and the openness of the theater where they perform their tricks is a cause of wonder to those who are not familiar with the methods of

legerdemain. Mr. Willmann, who had occasion to watch Hindu magicians, says in his book, *Moderne Wunder*, page 3: "After a careful investigation, it becomes apparent that the greatest miracles of Indian conjurors are much more insignificant than they appear in the latest reports of travellers.¹ The descriptions which in our days men of science have furnished about the wonderful tricks of fakirs have very little value in the shape in which they are rendered. If they, for instance, speak with admiration about the invisible growth of a flower before their very eyes, produced from the seed deposited by a fakir in a flower-pot, they prove only that even men of science can be duped by a little trick the practice of which lies without the pale of their own experience."

Eye-witnesses whose critical capacities are a safeguard against imposition relate more plausible stories. John T. McCutcheon describes the famous trick of growing a mango tree, as follows:

"The further away from India one is the greater appears the skill of these Hindu magicians. How often have we read the traveller's tales about the feats of Indian jugglers, and how eagerly we have looked forward to the time when we might behold them and be spellbound with amazement and surprise. When I first saw the India juggler beginning the preparations for the mango trick I was half prepared by the traveller's tales to see a graceful tree spring quickly into life and subsequently see somebody climb it and pick quantities of nice, ripe mangoes. Nothing of the kind happened, as will be seen by the following description of the mango trick as it is really performed.

"The juggler, with a big bag of properties, arrives on the scene and immediately begins to talk excitedly, meanwhile unpacking various receptacles taken from the bag. He squats down, pipes a few notes on a wheezy reed whistle and the show begins. From his belongings he takes a little tin can about the size of a cove oyster can, fills it with dirt and saturates the dirt with water. Then he holds up a mango seed to show that there is nothing concealed by his sleeves; counts "ek, do, tin, char," or "one, two, three, four," and imbeds the seed in the moist earth. He spreads a large cloth over the can and several feet of circumjacent ground. Then he plays a few more notes on his reed instrument and allows the seed a few minutes in which to take root and develop into a glorious shade tree. While he is waiting he unfolds some snakes from a small basket, takes a mongoose from a bag and entertains his audience with a combat between the mongoose and one of the snakes.

"Ek, do, tin, char; one, two, three, four—plenty fight—very good mongoose—biga snake—four rupee mongoose—two rupee snake—mongoose fight snake Look—gentlymans—plenty big fight.

"All this time the cloth remained peaceful and quiet, and there were no uneasy movements of its folds to indicate that the mango crop was flourishing. The juggler now turned his attention to it, however, poked his hands under the cloth, and after a few seconds of mysterious fumbling triumphantly threw off the cloth, and lo, there was a little bunch of leaves about as big as a sprig of water cress

¹ Referring to an account.

sticking up dejectedly from the damp earth. This was straightway deluged with some water and the cloth again thrown over it.

"Once more there was a diversion. This time an exhibition of a shell game, in which the juggler showed considerable dexterity in placing the little ball where you didn't think it would be. Still the cloth revealed no disposition to bulge skyward, and a second time the juggler fumbled under it, talking hurriedly in Hindustani and making the occasion as interesting as possible. After much poking around he finally threw off the cloth with a glad cry, and there was a mango tree a foot high, with adult leaves which glistened with moisture. When his spectators had gazed at it for awhile he pulled the little tree up by the roots, and there was a mango seed attached, with the little sprouts springing out from it.

"The trick was over, the juggler's harvest of rupees and annas began, and soon his crowd faded away. A few minutes later, from a half-hidden seat on the hotel veranda, I saw the wizard over across the street, beneath the big shade trees, folding up the mango tree and tucking it compactly into a small bag."¹

¹ Chicago Record, April 22, 1899.

[TO BE CONCLUDED.]

THE CONCEPT.¹

BY PROF. ERNST MACH.

THE first *movements* of new-born animals are responses to outward or inward excitations, which excitations are effected *mechanically* without the intervention of the intellect (the memory), and have their foundation in the inherited organism. They are *reflex* movements. Under this head belong the pecking of young chicks, the opening of the bills of young birds on the return of their parents with food, the swallowing of the food placed in their gullets, the suckling of young mammals, etc. It may be shown that the interference of the intellect not only does not enhance these movements, but frequently has a tendency to disturb them even.²

It will happen that a great variety of pleasurable and unpleasurable sensations will be produced during this process, and these sensations, which are peculiarly adapted to disengaging reflex movements, will become associated with others, which in themselves may be indifferent, and will be ultimately stored up in the memory, which has likewise gradually and simultaneously developed. Some small portion of the original excitation may then evoke the memory of the entire excitation, and this memory in turn may evoke the entire movement. The young sparrow described by me in another place affords a good instance of this,³ and young mammals prompted by the sight of their mother to seek nourishment, furnish a second example. The movements which thus take place are the *final term of a series of associations*; they are no longer reflex move-

¹ Translated from Mach's *Wärmelehre* by T. J. McCormack.

² It is well known that after children have once been weaned they can be brought to take the breast again only with great difficulty. But it may be necessary in cases of illness to make them do so, and having noticed in one instance of this kind that the movements of sucking were actually performed during sleep, I took advantage of the situation and caused the child, while asleep and unconscious, to be laid to its mother's breast, with the result that the desired movements occurred and the difficulty was overcome.

³ Compare my *Analysis of the Sensations*, Chicago, The Open Court Publishing Co., 1897.

ments, they are now called *spontaneous* movements. The question whether the innervation as such makes its appearance in consciousness not only by its results, but also immediately, we shall forego, since it is a debated one and since the answer to it is not absolutely necessary to our purpose.¹

As soon as a movement *B* which has ordinarily followed as a *reflex* upon an excitation *R* is induced *spontaneously* by some excitation *S*, which is associated with *R*, the most varied complications may arise, as a result of which entirely new excitational combinations, and in consequence entirely new motor combinations, may be produced. A young animal which has reached maturity is observed to seize an object which *appears* fit for food, sniff at it, nibble at it, and finally to bolt it or cast it away. Young anthropoid apes, so Mr. R. Franceschini informs me, are in the habit of biting forthwith into everything offered them, whereas old apes will toss aside objects for which they have no use after cursory inspection only. Infants too are wont to thrust into their mouths every object they can lay hold of. A friend of mine once observed a child grasp repeatedly at a burnt spot on a table, and immediately convey the supposed object with comical earnestness to its mouth.

Under *different* circumstances having something *in common*, accordingly, the *same* activities, the same movements, are produced, (grasping, sniffing, licking, and biting). These are productive of new sensory attributes, (odors, tastes, etc.), which become in their turn *determinative* and shape the subsequent behaviour of the animal (as swallowing, laying aside, etc.) Now it is these *accordant* activities, together with the *sensory attributes* evoked by them, both of which are in some manner elevated into consciousness, that constitute, as I take it, the *physiological* foundations of the *concept*. Wherever *like* reactions are induced, there the same concept is evoked; as many reactions as there are, so many concepts will there be. No one will feel disposed to deny to an animal that has acted in the manner described, the possession of something like the germs of the concepts "food," "non-food," etc., even though the words designating these concepts be wanting. But even designation by speech, in the form of calls and cries, may under certain circumstances accompany the acts we are considering, notwithstanding the fact that the calls are provoked involuntarily and never clearly appear in consciousness as deliberate signals. The concepts which originate in this manner will be exceedingly comprehensive and vague in character; but they are none the less the

¹ Compare W. James's *Psychology*, New York, 1890, Vol. II.

most important for the animal. The situation of the primitive man is not essentially different. The consequences of the activities employed by him in his explorations and in the attaining of his ends may be considerably complicated. Take, for instance, his stopping and listening on hearing the slightest noise; his pursuit and capture of his prey; his picking, cracking, and opening of nuts, etc. The behaviour of civilised man is distinguished from that of the animal and primitive man merely by the fact that he possesses more varied and more powerful facilities for investigation and for the attainment of his ends; that he is able owing to his richer memory to make use of more circuitous methods and of a greater number of intermediary agencies (instruments); that his senses are capable of making more refined and more comprehensive observations; and, finally, that he is enabled by the richer store of language at his command to define with greater minuteness and with greater precision the elements of his activity and sensory perception, to represent these same elements clearly in his memory, and to bring them within range of the observation of others. The behaviour of the natural inquirer offers merely a further difference of degree as compared with the preceding case.

A chemist *is able* to recognise a piece of sodium at sight, but does so on the presupposition that a definite number of tests which he has clearly in mind will unfailingly give the results which he expects. He can apply the concept "sodium" to the body in question *with certainty* only provided he actually finds the same to be soft as wax and easily cut, to have a silver sheen on the cut surface, to tarnish readily, to have the capacity to float and to rapidly decompose water, to have the specific gravity 0.972, to burn with a yellow flame when ignited, to have the atomic weight 23, and so on. The concept "sodium," accordingly, is merely the aggregate of a certain series of *sensory attributes* which make their appearance upon the performance of certain *definite* manual, instrumental, and technical operations, considerably complicated in character. The concept *whale* stands for an animal which has outwardly the form of a fish, but which on careful anatomical examination is found to have a double circulation, to breathe by means of lungs, and to possess all the other classificatory marks of the mammals. For the physicist the concept "electro-magnetic unit" ($\text{cm}^{\frac{1}{2}}\text{g}^{\frac{1}{2}}\text{sec}^{-1}$) stands for that galvanic current which acting with a magnetic horizontal component of $H=0.2$ ($\text{gr}^{\frac{1}{2}}\text{cm}^{-\frac{1}{2}}\text{sec}^{-1}$) on a magnetic needle suspended in the center of a circular wire of radius 31.41 cm. through which the current has been made to pass, turns that needle 45

degrees out of the meridian. This presupposes an additional set of operations for determining *H*.

The behaviour of the mathematician is similar. A circle is thought of as a line in a plane, every point of which line can be shown by measurement or otherwise to be equidistant from a certain point in the plane. The sum of $7+5$ is that number, 12, which is reached by counting onward 5 numbers from 7 in the natural scale. In these cases also we are required to perform certain well-defined *operations* (the measurement of lengths, counting), as the result of which certain sensory attributes (namely, the equality of the lengths in the one case, and the number 12 in the other) make their appearance. The well-defined activities in question, whether simple or complicated, are analogous in every respect to the operations by which an animal tests his food; and the sensory attributes referred to are analogous to the odor or taste which is determinative of the further behaviour of the animal.

Many years ago, I made the observation that two objects appear *alike* only in case the sensation-complexes corresponding to the two objects contain common, congruent, and *identical* components. This observation has been abundantly illustrated elsewhere in my works, and I have given of it numerous examples (symmetric and similar figures, melodies of the same rhythm, etc.¹) Attention was also drawn to the æsthetic value of the repetition of the same *motif*.² The idea was then naturally suggested that there lay at the basis of every *abstraction* certain *common real* psychical elements, representative of the components of the concept,³ be those elements ever so recondite. And it was found that the elements in question were commonly brought to consciousness by some special and definite activity,—a fact which has been sufficiently discussed in connexion with the examples given above.

The concept is enigmatic for the reason that on the one hand it appears in a logical aspect as the most definite of psychical constructs; while on the other hand, in a psychological aspect, when we seek for its real visualisable contents, we discover a very hazy

¹ See my *Contributions to the Analysis of the Sensations*, Eng. trans. Chicago, 1897.

² See the articles on the *Forms of Liquid* and on *Symmetry* originally published at Prague in 1872, and now embodied in the English translation of my *Popular Scientific Lectures*, third edition. Chicago, 1898. Compare also Soret, *Sur la perception du beau*, Geneva, 1892, which carries the æsthetic considerations much farther than my work, but does not go so deeply into the fundamental psychological and physiological conditions as does my *Analysis of the Sensations*.

³ Compare Mach, in *Pichte's Zeitschrift für Philosophie*. 1865. Page 5.

picture only.¹ Now the latter, whatever its composition, must necessarily be an individual picture. The concept, however, is not a *finished image*,² but a body of directions for testing some actually existing image with respect to certain properties, or of constructing some image from given properties. The definition of the concept, or the name of the concept, disengages a definite activity, a definite reaction which has a definite result. The manner of the reaction,³ as well as of the result, must find its expression in consciousness, and both are characteristic of the concept. A body is electric when it exhibits certain properties in response to certain reactions. Copper is a body of which the bluish-green solution in dilute sulphuric acid exhibits a certain behaviour when subjected to a certain treatment, etc.

Inasmuch, therefore, as the group of operations which is involved in the employment of a concept is frequently complicated in character, it is not at all remarkable that the result of the same should be set forth before us as a visual picture only in the simplest cases. It is furthermore clear that the group of operations in question, like the movements of our body, must be thoroughly practised if we are really to possess the concept. A concept cannot be passively assimilated; it can be acquired only by doing, only by concrete experience in the domain to which it belongs. One does not become a piano player, a mathematician, or a chemist, by looking on; one becomes such, only after constant practise of the

¹ So long as this hazy picture is regarded as the main thing, no understanding of the concept can ever be reached. Mr. E. C. Hegeler has ingeniously compared the picture in question to Galton's composite photographs, which are obtained by superposing upon one another the pictures of the members of a family, whereby the differences are obliterated and the common features of the family brought into more prominent relief (See Dr. Paul Carus's *Fundamental Problems*, Chicago, 1889, page 38). I have compared this phenomenon of the concept to the ancient Egyptian paintings which combine in a single picture things which can be seen only by different views of it (*Economical Nature of Physical Research*, Vienna, 1882, English translation in *Popular Scientific Lectures*, Chicago, 1898, page 186). In my *Analysis of the Sensations*, I have given what I believe to be a more satisfactory explanation of the question.

² Compare *Analysis of the Sensations*.

³ Despite all that has been said to the contrary, I find it difficult to comprehend that the inner vation of a movement does not come directly to consciousness in some manner. The consequences only of the motion are said to be brought to consciousness by its sensations in the skin and the mere memory of these sensations is said to be sufficient to produce the movement again. It is quite true that we do not know how we perform a movement, but only what the movement is and that we wish to perform it. When I *will to go forward*, this psychical act is to my feeling in no wise opposed to the memories of the sensations which take place in my legs, but appears to me far simpler. It was once attempted to identify all sensations of movement with sensations of the skin, etc., but it is to-day more probable that these sensations proceed in a far simpler and consequently more reliable manner from definite, specific organs. If my conception is correct, then that sharp, delicate, and trustworthy feeling for the reactions belonging to certain concepts is much more easily intelligible. It appears to me as if one could speak in more than a merely figurative way of the innervation of imagination.

operations involved. When practice has been acquired, however, the word which characterises the concept has an entirely different sound for us from formerly. The impulses to activity which are latent in it, even when they do not come to expression, or do not appear in consciousness, still play the part of secret advisers which induce the right associations and assure the correct use of the word.¹

Just as a technical operation may serve for testing a given object (testing by weights, dynamometric tests, the record of an indicator diagram), or for constructing a new object (the building of a machine), so also a concept may be used in a testing or constructive sense. The concepts in mathematics are mostly of this character, whereas the concepts of physics which cannot create its objects, but finds them already present in nature, are ordinarily of the first-mentioned kind. But even in mathematics, figures arise independently of the inquirer, furnishing material for subsequent investigation; and in physics also concepts are constructed for economical reasons. But the fact that mathematics operates in the main with constructions of its own creation, containing only that which it itself has put into them, whilst physics must wait before it finds out how far the objects of nature answer to its concepts, —this fact is the foundation of the logical superiority of mathematics.

Many of the concepts of mathematics show still another peculiarity. Let us consider the simple concept of the sum of $a + b$, where a and b may first be supposed to be whole numbers. This concept contains the impulse to count onward b numbers from a in the natural series, when the last number, $a + b$, is arrived at. This act of counting on may be regarded as a muscular activity which is always the same in all cases, however different, and the beginning of which is determined by a and the end by b . Through variation of the values of a and b , an infinite number of cognate concepts is created. If a and b be conceived as members of a number-continuum, there results a continuum of related concepts for which the reaction-activity is throughout the same, but where the beginning and the end are determined by properties representing members of the same continuum. Analogous considerations hold with respect to the concept of product, etc. The existence of such con-

¹ I have had frequent occasion to observe the power which latent psychical elements possess. Approaching, while deeply absorbed in thought, the house of a friend, upon whom I intended to call, I have more than once surprised myself in the act of drawing forth my own latch key. The word in other cases may call forth the same result as did the sight of the door in the present instance, without arousing to consciousness everything which corresponds to this symbol,

ceptual continua offers great advantages in those sciences to which mathematics is applicable.

A reference here to the old controversy of the nominalists and realists will be in place. There seems to be a germ of truth in both views. The "Universals" possess no physical reality, but they do possess a physiological reality. The physiological reactions are of less complexity than the physical stimuli.

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RHyme AND RHYTHM IN THE KORAN.

BY DANIEL J. RANKIN.

THE following attempts to translate from the original Arabic a few chapters of the Koran were jotted down by the writer after perusing the interesting article by Professor Warren in last November's impression of *The Open Court*.

The music of the Arabs, as perhaps of most other conservative peoples, appears to be characterised, or greatly influenced, by the physiography of their several countries, to be, indeed, the rhythmic expression of the physical environment of the singer.

As the Highland celt on his pipes is influenced in his music by the swelling or fitful gusts of the wild Westerly gales or the low, wailing sigh of the wind across the bleak moors, so the Arab depicts in rhythm the abrupt, jagged precipices of his sterile deserts or the weary, wavy monotone of his arid plains, now on a needle-like pinnacle of sound, then hurtling down to the abysmal depths of the scale, now here, now there, like the desert gazelle in its bounds and flying leaps from boulder to crag.

To an ear accustomed only to the European system the effect is as chaotic and jarring, or as wearisome and monotonous, as the mountains and deserts of the Arab land its birth-place.

Thus it seems to the writer that the difficulties of translating so typical a work as the Koran into another tongue for the effective appreciation of peoples having essentially different concepts of musical cadence, are insuperable, and can only end in failure.

In translating a work which has claimed for it a supernatural origin, the text should be scrupulously adhered to, and the utmost endeavor made to obviate additions or change of reading, and where these appear necessary they should be notified. This I have done in italics; but for the reasons given above I have made no attempt to imitate the rhythmic cadence of the original.

SURA I.

*In the name of the Merciful,
God, the Pitiful.*

Praise be to God, to the Lord of the Worlds.
The Merciful, Pitiful One,
King of the Day on which all men are judged.
We worship Thee, asking for aid.
Lead us in th' path of those guided aright,
The path of those pleasing to Thee.
Not in the path of those causing Thee wrath,
Nor those who are wand'ring astray.

SURA CX.

*In the name of the Merciful,
God, the Pitiful.*

When the help of God shall come,
And the Victory be won.
And mankind in troops ye see
Unto God's religion flee.
Then extol thy Lord in praise.
His forgiveness ask *always*,
He, His pardon never stays.

SURA CXI.

*In the name of the Merciful,
God, the Pitiful.*

Shall perish his hands. *Yea*, perish himself,
Abu Laheb, *called Father of Flames*.
Nor profit his wealth, nor profit his pelf.
He shall be burned in a Furnace of Flames.
His wife too shall carry the wood *on her arm*,
Bound round her neck with a rope from the palm.

SURA CXII.

*In the name of the Merciful,
God, the Pitiful.*

Say, God, He is One.
God is Eternal.
He neither begets, nor was begotten.
Nor is there with Him any to liken.

SURA CXIII.

*In the name of the Merciful,
God, the Pitiful.*

Say, To the Lord of Dawning Day, for refuge do I flee,
From evil that hath been created *and may fall on me*.
And from the harm of dark'ning night when I o'ershadowed be

And from the ill of women blowing on the magic knot,
And from the hurt of envier when envying *my lot*.

SURA CXIV.

*In the name of the Merciful,
God, the Pitiful.*

Say, To the Lord of all mankind, for refuge do I fly.
The King of Men,
The God of Men.
From that withdrawing whisperer, who in mens' hearts doth lie
From Jinn and Men.

GOSPEL PARALLELS FROM PÂLI TEXTS.¹

Translated from the Originals by ALBERT J. EDMUNDS.

(Third Series).

PSYCHICAL POWERS.

Numerical Collection, iii. 60 (not before translated). Compare also Middling Collection, Dialogue No. 6, translated in S. B. E. XI; Long Collection, Dialogue No. 11, translated in *Dialogues of the Buddha* (1899), each by Rhys Davids, and the former also into German by Neumann.

Mark Appendix XVI. 17, 18: And these signs shall follow them that believe: in my name shall they cast out demons; they shall speak with [new] tongues; they shall take up serpents, and if they drink any deadly thing, it shall in no wise hurt them; they shall lay hands on the sick, and they shall recover.

O Brâhman, there are these three miracles.² What three?—The miracle of psychical power, the miracle of mind-reading, and the miracle of education. What, O Brâhman, is the miracle of psychical power? In this case, O Brâhman, one enjoys in various ways a kind of psychical power: from being one he becomes multiform, from being multiform he becomes one; he appears and vanishes,³ he goes without hindrance to the further side of a wall or battlement or mountain, as if through air; he plunges into earth and emerges, as if in water; he walks on the water without dividing it,

¹At the end of our Second Series, published in April, 1900, "Mark iii. 2," was a misprint for Mark iii. 11.

²*Patihāriya* is the regular word for a display of magical power or jugglery, and is best rendered "miracle." The word *iddhi*, translated "psychical power," is more dignified. Burnouf renders it "puissance surnaturelle."

³Luke xxiv. 31, 36: And their eyes were opened, and they knew him; and he vanished out of their sight. . . . And as they spake these things, he himself stood in the midst of them.

John xx. 19, 26: When therefore it was evening, on that day, the first day of the week, and when the doors were shut where the disciples were, for fear of the Jews, Jesus came and stood in the midst, and saith unto them, Peace be unto you. . . .

And after eight days again his disciples were within, and Thomas with them, Jesus cometh, the doors being shut, and stood in the midst, and said, Peace be unto you.

as if on earth ;¹ like a bird on wing he travels through the air in the posture of meditation ; and yonder sun and moon, so magical, so mighty, he feels and touches with his hand ; while up to the world of God he reaches even in the body. This, O Brāhman, is called the miracle of psychical power.

And what, Brāhman, is the miracle of mind-reading ? In this case, O Brāhman, one reads minds by visible indication, and says : "Your mind is thus, your mind is so, your heart is so-and-so." Even if he read much, it is always as he says, and not otherwise. Again, O Brāhman, one reads minds not by visible indication, but by hearing the voice of men, demons or angels, and then declaring the state of mind ; and even if he read much, he is always right. Nor alone by these means does he read, but he hears the sound of thought-vibrations from thinking and reflecting, and in this way comes to read the mind and heart. And, as before, he is always right. Then again, besides visible indication, voice and thought-vibration, one ascertains the trance-mind of a man absorbed in rapture beyond thought and beyond reflexion, by heart-to-heart perception, so that one can say : "From the determinate mental conformation of this friend, from the nature of his heart, he will think such and such a thought." And as before, he is always right. This, O Brāhman, is called the miracle of mind-reading.

What, now, Brāhman, is the miracle of education ?

In this case, O Brāhman, one educates on this wise : "Think thus instead of so ; consider thus instead of thus. Renounce this ; train yourself in that, and abide therein." This, O Brāhman, is called the miracle of education. And these are the three miracles.² Which of the three, think you, is the most excellent and most refined ?

Well, now, Gotamo, as to the miracle of psychical power, he who performs and experiences this has the benefit all to himself. This kind of miracle, Gotamo, appears to me a natural accompaniment of religion. And I think the same of the second, the miracle of mind-reading. But that last one, Gotamo, that miracle of education, appears to me the most excellent and most refined. Won-

¹ Mark vi. 48, and parallels (told of Christ) : And seeing them distressed in rowing, for the wind was contrary unto them, about the fourth watch of the night he cometh unto them, walking on the sea.

Matthew xiv. 29 (told of Peter) : And he said, come. And Peter went down from the boat, and walked upon the waters, to come to Jesus.

² In *Dīgha* No. 11, Gotamo says : "It is because I see the danger in miracles of psychical power and of mind-reading, that I detest, abhor and despise them." In the uncanonical Sanskrit *Dhyāvadāna*, he says that he commands his disciples not to work miracles, but to hide their good deeds and show their sins.

derful, O Gotamo, marvellous, O Gotamo, is this good saying of yours; and we hold that you are endowed with all three of these miracles. Gotamo can indeed practise every one of the aforesaid psychical powers, from becoming multiform to reaching in the body unto the world of God. Gotamo can ascertain the trance-mind of a man absorbed in rapture beyond thought and beyond reflexion, by heart-to-heart perception, and can say from the determinate mental conformation and the nature of the heart what the thought will be. And Gotamo can educate by telling what to think and what to consider; what to renounce, wherein to train oneself, and wherein to abide.

It is true, O Brâhman, that I have attained to all that you have said, and I will furthermore assert that I can do each of the three miracles in question.¹

But is there, Gotamo, a single other monk who is endowed with these miracles besides yourself?

Brâhman, not only one, nor a hundred, nor two, three, four, or five hundred, but even more monks there are who are endowed with these miracles.

But, Gotamo, where do these monks now dwell?

In this very Order, O Brâhman!

Excellent, O Gotamo! this is excellent! As one raises what had been thrown down, or reveals what has been hidden, or tells the way to him who has gone astray, or holds out a lamp in the darkness that those who have eyes may see the objects, just even so has the Doctrine been made clear by Gotamo in manifold exposition. And I, even I, take refuge in Gotamo, his Doctrine and his Order. May Gotamo receive, as a lay-disciple, from this day forth as long as life endures, me who have taken refuge [in him].

FURTHER PSYCHICAL POWERS.

Numerical Collection, Class XI. Quoted in *The Questions of King Milindo* (S. B. E. XXXV., p. 279). See also Jâtaka 169.

Luke x. 19: Behold, I have given you authority to tread upon serpents and scorpions, and over all the power of the enemy: and nothing shall in any wise hurt you.

Mark Appendix (as above).

Eleven advantages, O monks, may be expected from the cultivation of Benevolence,—from practising it, developing, making it a vehicle and an aim, pursuing it, accumulating, and striving to

¹ In this and similar cases the tedious repetitions of the original are condensed into the style of our Western rhetoric.

the height of its heart-deliverance. What are these eleven?—One sleeps in peace, and wakes in peace; he dreams no evil dream; he is dear unto mortals and immortals; the angels watch over him; fire, poison, sword, can harm him not; quickly his heart is calmed; the aspect of his countenance is serene; he meets death undismayed; and should he fail of the Highest, he is sure to go to the world of God.

DISPLAY OF PSYCHICAL POWER FORBIDDEN.

Cullavaggo V. 8. (translated in S. B. E. XX., p. 81).

Mark viii. 11, 12: And the Pharisees came forth, and began to question with him, seeking of him a sign from heaven, tempting him. And he sighed deeply in his spirit, and saith, Why doth this generation seek a sign? Verily I say unto you, There shall no sign be given unto this generation.

Ye are not, O monks, to display psychical power or miracle of superhuman kind before the laity. Whoever does so is guilty of a misdemeanor.

POWER OVER SERPENTS.

Cullavaggo V. 6. (Translated in S. B. E., XX., p. 75). See also Jātaka 203

Luke x. 19, as above. (Justin Martyr adds *centipedes*.)

Now at that season a certain monk died of the bite of a serpent. They told the matter to the Blessed One. . . . And he said: "Now surely that monk, O monks, did not diffuse his Benevolence toward the four royal breeds of serpents! Had he done so, he would not die of the bite of one."

(The reason why I capitalise *Benevolence* is because it is a technical term, and means literally and forcibly *willing what is good*. By a systematic practice of this love-meditation, or projection of affectionate thought-waves toward all creatures, Gotamo, as we have read in a former translation, became the Deity of a by-gone cycle.)

SAVED FROM HELL.

Long Collection, Dialogue No. 12. (Translated in Rhys Davids's *Dialogues of the Buddha*, 1899.)

John iii. 16, 17: For God so loved the world, that he gave his only begotten Son, that whosoever believeth on him should not perish, but have eternal life. For God sent not the Son into the world to judge the world; but that the world should be saved through him.

Jude 23: And some save, snatching them out of the fire; and on some have mercy with fear; hating even the garment spotted by the flesh.

Lohicca the Brâhman spake thus unto the Blessed One: "O Gotamo, just as if a man had caught another by the hair who was

falling over the precipice of hell, lifted him up, and set him safe upon firm land; just even so have I, who was falling over the precipice of hell, been lifted up and set safe upon firm land by Gotamo."

(Fausböll and Rhys Davids translate *bho Gotama!* by "venerable Gotama." I have translated *bho*, when standing alone, as "friend": one might have said "gentleman," in the low complimentary sense denounced by Tennyson. *Bho*, when coupled with a name, is a familiar address, equivalent to our calling a man Smith or Jones, without the "Mister." The Buddhists resented this arrogant familiarity on the part of the Brâhmans toward the Master, and nicknamed the entire priestly caste "Bho callers," in consequence. Gotamo was the Master's family or clan-name, answering to our Smith, etc.; and rightly to appreciate the snobbery of the Brâhmans, we must imagine them saying: "Shakespeare, I want to talk to you.")

CASTES LOST IN THE LORD.

Udâna V. 5: Cullavaggo IX. 1. (Translated in S. B. E., XX., p. 304.)

Galatians iii. 28: There can be neither Jew nor Greek, there can be neither bond nor free, there can be no male and female; for ye all are one man in Christ Jesus.

Mark iii. 34, 35: And looking round on them which sat round about him, he saith, Behold, my mother and my brethren! For whosoever shall do the will of God, the same is my brother, and sister, and mother.

John xv. 14, 15: Ye are my friends, if ye do the things which I command you. No longer do I call you slaves; for the slave knoweth not what his lord doeth: but I have called you friends; for all things that I heard from my Father I have made known unto you.

Just, O monks, as the great rivers,—to wit: the Ganges, the Jamna, the Rapti, the Gogra, the Mâhi,—when they fall into the great ocean, renounce their former name and kind and are counted as the mighty sea: just even so, monks, do these four castes,—to wit: the Nobles, the Brâhmans, the Tradesfolk, and the Slaves,—when they have gone forth from domestic life into the homeless one, under the Doctrine and Discipline made public by the Tathâgata, renounce their former name and clan, to be numbered with the Sâkya philosophers.

THE SECOND COMING.

Long Collection, Dialogue No. 26.

(Translated from the King of Siam's edition, because not yet printed in Roman letters.)

John xiv. 26 : But the Comforter which is the Holy Ghost, whom the Father will send in my name, he shall teach you all things, and bring all things to your remembrance, whatsoever I have said unto you.

Revelation xx. 6 : Blessed and holy is he that hath part in the first resurrection : over these the second death hath no power ; but they shall be priests of God and of Christ, and shall reign with him a thousand years.

Monks, in the days of the men of eighty thousand years there will arise in the world a Buddha named Metteyyo (i. e., the Benevolent One ; Sanskrit, Maitreya), a Holy One,¹ a supremely Enlightened One, endowed with wisdom in conduct ; auspicious, knowing the universe ; an incomparable Charioteer of men who are tamed ; a Master of angels and Mortals, a Blessed Buddha ; even as I have now arisen in the world, a Buddha with these same qualities endowed. What he has realised by his own supernal knowledge he will publish to this universe, with its angels, its fiends, and its archangels, and to the race of philosophers and brahmins, princes and peoples ; even as I now, having all this knowledge, do publish the same unto the same. He will preach his religion, glorious in its origin, glorious at the climax, glorious at the goal, in the spirit and the letter. He will proclaim a religious life, wholly perfect, and thoroughly pure ; even as I now preach my religion and a like life do proclaim. He will keep up a society of monks numbering many thousand, even as I now keep up a society of monks numbering many hundred.

¹ *Arhat*, and so always.

MISCELLANEOUS.

A NEW WORK ON COMTE.

No French philosopher of the present century has exercised so great an influence beyond the boundary of his country as Auguste Comte. His system met with its first success in England and Holland. John Stuart Mill, Spencer, George Lewes, George Eliot, and a considerable number of other English thinkers and authors were more or less largely inspired by it. The religion of humanity which it promulgated is represented even to-day by societies in England, (at the head of which stands Mr. Frederick Harrison), and in the Latin states of both Europe and South America there exist positivist societies which are more enthusiastic for Comte's religion than were any of his followers during his lifetime. Even in Germany, the influence of his philosophy has been felt. The scientific sociology of to-day has proceeded directly from it. Scientific psychology is also in some measure its product, while the theories of "psychological moment" and of the biological and sociological "environment" which have been so richly elaborated by such authors as Taine, were almost entirely due to his applications of the principles of Lamarck to the doctrines of Montesquieu. In fine, whatever may be the fate of Comte's system, it is certainly the expression of one of the most characteristic tendencies of the present century, and we are glad that we have at last a competent and adequate exposition of his dominant ideas from the pen of a critical and impartial historian, M. L. Lévy-Bruhl, of the *École des Sciences Politiques*, and of the University of Paris. This writer is neither an adherent nor an opponent of Comte's philosophy, and he has accordingly performed his task in the same unimpassioned and unpolemical manner as if he were writing of Aristotle or of Descartes.¹

M. Lévy-Bruhl regards philosophical systems not only as the creations of individual minds, but also as products of their times and countries. Comte's period was that immediately succeeding the French Revolution. The question of the day was that of "social reorganisation," which occupied the thoughts of nearly every French thinker, as Fouillée, Saint-Simon, Joseph DeMaistre, and which also gave the first impulse to the writers on socialism in Germany and other countries. "The nineteenth century," says Von Ranke, "is pre-eminently a century of reconstruction." The "critical" period had passed, the "organic" period had come. "Social reorganisation" was also the task to which Comte set himself, but he differed from the other reformers of his period in demanding that reasoned opinion should be the groundwork of reform, that rational philosophy should be the basis of so-

¹ *La philosophie d'Auguste Comte*, par L. Lévy-Bruhl. Paris: Félix Alcan, 108 Boulevard Saint-Germain. 1900. Pages, 417. Price, 7 francs 50.

cology and ethics. Every new project was in vain, he contended, unless founded upon some such general system of opinions and convictions as were the Catholic dogmas of the Middle Ages. Comte began, therefore, as a philosopher. He, too, desired to found a social, a "political" system, but it was to be primarily scientific, that is, "positive," and it was to repose on an ethics and a philosophy likewise "positive." From the first his life was but the methodical execution of this plan. M. Lévy-Bruhl sees no break of continuity in its development, as some writers have since. To him, Comte's career, said at the beginning to have been that of an Aristotle and at the end that of a Saint Paul, answered perfectly to the beautiful definition given in reply to the question: *Qu'est-ce qu'une grande vie? Une pensée de la jeunesse, exécutée par l'âge mûr.* The positive philosophy thus was merely preparatory to the positive religion, was its "indispensable preamble." That preamble, of researches in mathematics, astronomy and the physical sciences, the natural sciences, biology, psychology, and sociology, lasted twenty-eight years. When the crowning work came, the old generation had passed away, and the new turned a deaf ear to his supplications. The religion of humanity has now virtually met the fate that all similar systems have. The thought of Comte's youth and of his maturity alone remains; the dream of his old age has melted away, leaving but a few racks behind. To Comte's philosophy and science, therefore, M. Lévy-Bruhl devotes his book, not to his religion, and of the former, the reader may be assured that he will find here a faithful picture.

T. J. McC.

CORRESPONDENCE ON CHINA BY A CHINAMAN.¹

To the Editor of The Open Court:

At present we are in the midst of an intellectual revolution. Owing to the efforts of reformers like K'ang Yue Wei and Liang Chi Ch'ao, the whole literary classes of China are at last aroused from their former stupor and lethargy, and we may hope to see some tangible results in the near future. The object of the Reform party is at present the restoration of the legitimate Emperor to power, and they believe that when this is accomplished an era of reform and progress will be duly inaugurated. They are at last appealing to the national spirit in the race and must therefore succeed ultimately. Practically, however, they have not accomplished much beyond frightening the Empress Dowager into withdrawing her decree for establishing a new reign with the advent of the current year. This is, however, a great deal to any one who understands Chinese institutions and the autocratic self-will of the Empress Dowager. K'ang is now a refugee here, like Voltaire on the shores of Lake Lemane, thundering against Mandarin corruption, oppression, and ignorance. For this reason the reward offered for his head is now Tls. 140,000. To my mind, however, his reform schemes appear too revolutionary and impractical. Contrary to Confucius, he is striving after the distant and the high instead of the near and the lowly. When he had the Emperor's ear, if instead of abolishing certain old established departments he had advised the abolition of such an obnoxious custom as the "Kowtow"; if instead of recommending the confiscation of all temples throughout the Empire for use as schools, he had contented himself with the founding of a single really useful educational institution; if instead of creating a new fleet and building railways, he had interested himself

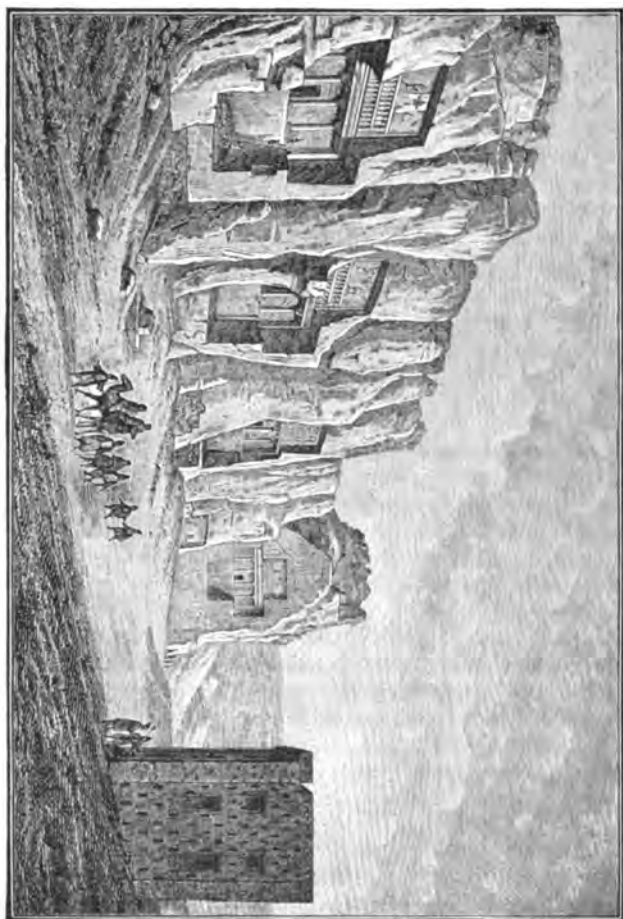
¹ The author of this letter is a scholar who is exceptionally well versed in Western civilisation. Not having permission to use his name, we omit his signature.

in the restoration of a single roadway in Pekin, he would have earned for himself the respect and gratitude of all. His mistakes, however, were due to his past education. Nevertheless, his influence over the literati in China and elsewhere could not be disputed, and for such practical measures as above indicated we must look to some other Peter the Great or perhaps Napoleon.

ZARATHUSHTRA.

Professor A. V. Williams Jackson, the Zend-Avesta Scholar of Columbia University, New York, published in the January number of the *Cosmopolitan* an in-

TOMBS OF ANCIENT PERSIAN SOVEREIGNS.



teresting illustrated article on Zarathushtra or Zoroaster, the prophet of Iran, born about 660 B. C. The canonical gospels tell us of the three Magi who came from the East to worship Christ and an apocryphal gospel adds the statement that they



TAKHT-I BOSTĀN SCULPTURE.

The figure supposed to be Zarathushtra is the third figure in the row. It stands on a plant-like pedestal and the head is surrounded by a halo of rays,

came in compliance with a prophecy of Zoroaster. We quote the following passage which is a condensed statement of Zoroaster's life :

"Tradition says that Zoroaster retired from the world when he came of age and that he lived for some years upon a remote mountain in the silence of the forest



IDEALISED PORTRAIT FROM A SCULPTURE SUPPOSED TO
REPRESENT ZARATHUSHTRA.

(From Karaka's *History of the Parsees*.)

or taking shelter in a lonely cave. It was the solemn stillness of such surroundings that lifted him into direct communion with God. A divine vision is accorded him on the occasion, apparently, of some religious conference ; and at the age of thirty,

after leaving the Iranian Sinai, he is prepared to teach a new law. "Righteousness is the best good"—"Ashem vohū vahisstem asti"—is his watchword; but he finds little fruitful soil for his theme. Over the land of Iran he wanders; through the territory of the modern Afghanistan he turns, and for a time he actually tarries in the country of Turan. But it is to deaf ears that he preaches, and his inspiration seems almost destined to have been in vain.

"The rulers harden their hearts before the newly-inspired prophet; the people fail to accept the message of the god Ahura Mazda. And yet Ahura Mazda, or Ormazd, is the "Lord Wisdom, the Sovereign Knowledge."

"For ten years, dervishlike he is a wanderer. This we know also from the tone of dejection which still echoes in some of the *Zoroastrian Psalms*. In his peregrinations he appears to have found his way once more to the region of the Caspian Sea. The darkness of these sad years is illumined, however, by visions which help to make strong his faith and to give form to his religious system and creed. Seven times are the mysteries of heaven revealed to his transported soul. He converses not alone with Ormazd, but he is also privileged to interview the Archangels of Good Thought, Best Righteousness, Wished-for Kingdom, Holy Harmony (guardian spirit of the earth), Saving Health and Immortality. Such are the names of the Persian hierarchy of *Amshaspands*; and these allegorical figures or personified abstractions stand in waiting about the throne of Ahura Mazda with a company of attendant angels. From these divine beings, Zarathushtra receives commands and injunctions which he is to convey to mankind. They inculcate the doctrine of purity of body as well as of soul; they enjoin the care of useful animals, especially the cow and the dog; they emphasise the necessity of keeping the earth, the fire and the water undefiled; and from several of their ordinances we can see that Zoroaster was a civil reformer as well as a spiritual guide. Foremost among the commandments is the abhorrence of falsehood, the universal obligation to speak the truth. This is one of the most fundamental of the ethical tenets that lie at the basis of the entire ancient Persian religious system. A revelation of the future is also vouchsafed to the soul of the Prophet during his sojourn in the celestial council; but one of the most precious boons which it is the privilege of his enrapt spirit to receive in these moments of ecstasy is a premonition of the resurrection and of the future life. Unlike the Mohammedan visions of ethereal bliss, there is no jarring note of pleasures of a physical kind to mar the harmony and spirituality of this glimpse into the world beyond the present.

"But before the ecstatic Messenger is allowed to return to the world of material things, one word of warning is given to guard him against the guile and deceit of the Spiritual Enemy, Angra Mainyu or Ahriman, as the devil is called. At this moment, then, as he turns from the dazzling splendor of heaven, a glimpse of the darkness, filth, stench and torment of the "Worst World" is disclosed. There in the murky depths of hell, with mocking howls and ribald jeers, huddle together and cower the vile crew of the archfiends and whole legions of demons, or "devs," as they still are named in Persian.

"Nor is this caution any too timely, for at once upon the hallowed Seer's return to earth occurs the temptation by Ahriman. Like the wily Māra seeking to beguile the newly-enlightened Buddha, or the tempter Satan striving to betray the Savior of mankind, the maleficent Ahriman endeavors to cause the righteous Zarathushtra 'to renounce the good religion of worshippers of Mazda.' This moment is a crisis; it is one of the turning-points in the history of the faith. The foul fiend is repulsed and vanquished and the victorious upholder of righteousness chants a

kind of Te Deum—'yatha abu vairyo'—as a pæan of his triumph. His victory over Abri-man is complete, and it serves as the prelude to more full and perfect success, for Zoroaster, who has received the revelation and who has withstood all temptation, is now to achieve his crowning glory, the conversion of King Vishtāspa who becomes the Constantine of the faith."

Other scriptures of interest are the tombs of the Persian kings which show a representation of Ahura Mazda, a dignified man growing from a winged disk. This same emblem decorates the gable front of the Paroi temple of Atash Behram in Bombay.

THE HOME OF GOD.

BY PIERCE C. FREETH.

Where is the home of God?
Where may the God-seeker find Him?
Here in my transient soul?
There in that purple mountain?
Is His throne in a twinkling star?
Looks He forth from the sombrous
moon?
Are His great thoughts hid by the deep
sea crests?
Or burn they deep in our human breasts?
Will He breathe an Apocalypse soon?

Do ye not know?
God dwells where dwells perfection.
In the eye of a child
There is His Holy of Holies;
In the heart of a seer,
In the grip of a man of action.
God guides the hand of the ploughman,
But His is the ripened harvest.
Where beats the heart in endeavor God
hovers;
In the deed well done God's presence
feel;
Wrought Performance, ah! that is God.
God is Silent. Voice of Thunder
The impact of the clouds hastening to
escape
His swift quickening spirit.
All the puissant forces of the earth and
Sky and Sea
Are silent: and are God.
Each potent spark is dynamic of God;
Each life light ray is emanant from God
And doth our hearts illuminate if we
perceive.

Perception: that is God!
If ye would know Him
Flee to the outer space
Observe the simplest flower
Obtruding from the clay and cumbering
herbage
Standing for a sign to man;
God seeded it, and watered it,
The daisy lifteth up itself
And for one day is God.
Pierce to the depths where the fern
fronds are aworship,
There find God.
In the still lake, in clear bush-hidden
streams,
God's spirit flows.
Not in the crowd you'll find Him;
He hateth noisy rabblings;
But see ye on the verge,
One stern and thoughtful face, commun-
ing inwardly,
Then look for God;
Or some poor trull with eyes aye-earn for
Pity
And God is near.
He flees the ranter, and those that pray
With foaming emphasis,
And squirm, and crawl, already rotting
for the sod;
These be imperfect worms, whom to
perfect
Would not advantage him;
But Daisy uprightness, rigidity of Rock
In purpose manful, which is Godful,
Doth so delight Him
That if it were possible to breed a race
of men

There were no need for a millennium
 For it were here.
 God is in all performance
 Every day he guides the hand of genius
 To the master stroke, holding it there
 As Master Genius.
 To praise a hero is to raise a psalm to
 God,
 The Heroes' Hero.
 Then see with what simplicity divine
 He holds the reins which guide a mass
 of waving systems !
 See how the rents of Friction are re-
 paired,
 Not by a miracle, but by amelioration of
 the years,
 A lesson, surely, here for us to hasten
 slowly
 To our sure Goal of God.
 God is a Simpleton : See how very loth
 He is
 To obtrude the merest details of His
 Great Design ;
 Thus it is, that as like like begets
 The ploughboy loutish, likewise Simple-
 ton,
 Hath often a more inner view of God's
 Great Concept
 Than your pragmatic doctrinaire and all
 His thoughtless thousand congregation.
 God is a spirit ; worship Him in Spirit
 and in Truth
 But more than all in Deed.

 Where is God not ?—
 See that storm-blasted pine
 With rotten outwardness presaging rot-
 ten innerness ?
 There God is not.
 See that dead fruit clinging to withering
 stalks ?
 There God is not.
 Where life is not, there God is not.
 The heating fire of High Desire is God.
 When He departs Desire vanisheth
 Leaving to rearward everywhere traces
 of Death,
 Paralysis, stagnation, and the pall of
 Doom.
 The stricken doe feels God depart

And lays her down and dies.
 The instinct of the brute we say :
 Vanish instinct vanish God.
 So it is with all creation ;
 So it is with that frail genius yclept man
 Which arrogates unto itself superiority
 Because together with its fairer attrib-
 utes
 It wags, or so it thinks,
 A far more facile and a better reasoned
 speech
 Than all surrounding heterogeneity.
 But is it so ?
 God knows, and he alone can know
 Whose dialect is spoken of the Universe
 If man is not a more imperfect beast,
 Vegetable, bird, or whatever thing he is
 Than half the other dwellers of the
 sphere.
 Once in a hundred years God sends a
 Man—
 Or so it seems to us purblindlings—
 Who, when he soars, we shoot
 With critic shafts and hypercritic malices
 unto the death ;
 Then gather round the bier and scream
 apotheosis.
 There God is not.
 He one time sent a strange imperfect
 Christ
 Whose strength was weakness : See how
 Jesus died !
 And other would-be Christs have risen,
 and gone down
 In silent might ; their names enwrought
 With blood and fire in the tablets of the
 ages.
 Look what small God-like Wisdom rules
 this man !
 Look how hypocrisy, cunning, all the
 vices
 Leap up and grin upon his party gov-
 ernment !
 What wonder then that at first sound
 Of such contemptuous strife
 If God the Simpleton, ashamed of his
 handiwork,
 Shakes free the clogging dust, and flees
 these whited sepulchres !
 There God is not.

God wants not worship from the wilted
soul.

See how His wand of Doom
Touches the prostrate seedling.

See what a poor, warped, weakly thing
it is

Which flings upon its knees in selfish
fear

And wastes a precious lifetime crying
mercy!

See how the Creeds at pulpiterial beck
Bow down to gods of wood, and stone,
and stained glass

And spill the filthy grease of beasts
On wastrel altars; whilst hunger damned
In soul, not less than flesh, perish their
fellows!

There God is not.

Would ye put on the Godly attributes,
and death defy?

Nay, would ye God be in yourselves?

Then strip your robes conventional
shed thy halt creed

And stand out naked for the Truth.

Fear no man but Thyself; no teaching
brook

But that of thine own heart, God's alma
mater.

Be not less pure than mountain stream
Nor less erect than mountain birch,
Pierce through the clouds like mountain
peak,

Shed out sweet fragrance like the flower
Reflect the radiance of the Sun,

Be silent, steadfast as the Rock,

But, birdlike, when the chance presents
Pierce the empyrean with thy voice.

Impart thy favors as the dew,

Which tips the flowers then quick re-
solves

Into its native atmosphere;

Then quick take introspective glance,

Find thine own Heart the Home of God

IN GHOSTLY JAPAN.¹

A valuable contribution to the literature on Japan and things Japanese has recently come from the fascinating pen of Prof. Lafcadio Hearn, of Tokyo Imperial University. His name and his several former works are all well known to American readers who take an interest in these subjects. By his gifted literary talent and assimilative imagination, he has rightly won the admiration and sympathy of the reader, both at home and abroad. Many works describing the inner and outer life in Japan have been written, but most of them seem to me to have failed of accomplishing their aim. Mr. Koizumi Yakumo, which is the Japanese name of the author of the present book, enjoying free and long intercourse with the natives and above all being endowed with intensity of imagination and keenness of analytic powers, has deeply penetrated into the atmosphere which surrounds and permeates Japanese life and thought.

In the present work he tries to depict the beliefs and superstitions of the people as derived from popular Buddhism. The book starts with a scene on the "Mountain of Skulls," of which we reproduce the illustration. The opening is ghostly enough, but the legend is thoughtful. It describes the vision of a searcher for truth. A pilgrim follows the voice of Bodhisattva, yet finds himself to his horror climbing a mountain of skulls. Bodhisattva encourages the wanderer, saying: "Do not fear, my son! Only the strong of heart can win to the place of the vision." The significance of the dream is explained as follows:

"A mountain of skulls it is; but know, my son, that all of them are your own! Each has at some time been the nest of your dreams and delusions and desires.

¹ *In Ghostly Japan*. Illustrated. By Lafcadio Hearn. Boston: Little, Brown, & Co. 1899. Pp., 241. Price, \$2.00.

Not even one of them is the skull of any other being. All—all without exception—have been yours, in the billions of your former lives."

The author's method is varied. He narrates, describes, moralises, philosophises, becomes absorbed in reverie, and concludes with a reflexion on human life as the music of the gods,—the thought suggested on the sea-shore at the time of



THE MOUNTAIN OF SKULLS. (From *In Ghostly Japan*.)

the Bon or Festival of the Dead. The collection of Buddhist Proverbs will be of special interest to many readers, and omitting the original Japanese which is added throughout by Mr. Hearn, we quote the following wise saws:

"All evil done clings to the person.

Better to shave the heart than to shave the head.

Meeting is only the beginning of separation.
 Even a common man by obtaining knowledge becomes a Buddha.
 All lust is grief.
 Out of karma-relation even the divine nature itself grows.
 Like monkeys trying to snatch the moon's reflexion on water.
 The priest who preaches foul doctrine shall be reborn as a fungus.
 The future life is the all-important thing.
 Like a lot of blind men feeling a great elephant.
 The task of the priest is to save mankind.
 Even the Buddha was originally but a common man.
 Even to become a Buddha one must first become a novice.
 One blind man leads many blind men.
 Life is a lamp-flame before a wind.
 Even a worm an inch long has a soul half an inch long.
 Hell and Heaven are in the hearts of men.
 Even Hell itself is a dwelling-place.
 Even in Hell old acquaintances are welcome.
 Never let go the reins of the wild colt of the heart.
 The body is tortured only by the demon of the heart.
 Be the teacher of your heart: do not allow your heart to become your teacher.
 This world is only a resting-place.
 The mouth is the front-gate of all misfortune.
 Nothing will grow, if the seed be not sown.
 Having waxed, it wanes.
 In even a cat the Buddha-nature exists.
 The time of sleep is Paradise.
 Even a devil is pretty at eighteen.
 Even a devil, when you become accustomed to the sight of him, may prove a pleasant acquaintance.
 A devil takes a goblin to wife.
 With one hair of a woman you can tether even a great elephant.
 The karma of the parents is visited upon the child.
 The fallen blossom never returns to the branch.
 Pleasure is the seed of pain; pain is the seed of pleasure.
 Only by reason of having died does one enter into life.¹
 There is no miracle in true doctrine.
 Joy is the source of sorrow.
 So the insects of summer fly to the flame.
 Clay-Buddha's water-playing.²
 So entertaining is the style of the book, and so diversified its topics, that in reading it we are reminded of a well-known Chinese style of comment on this kind of writing: "The author leads the reader to a wonderful land where one finds now a green sward, now a jungle, now a rugged mountain, now a murmuring brooklet,

¹ I never hear this singular proverb without being reminded of a sentence in Huxley's famous essay, *On the Physical Basis of Life*: "The living protoplasm not only ultimately dies and is resolved into its mineral and lifeless constituents, but is always dying, and, strange as the paradox may sound, *could not live unless it died.*"

² That is to say, "As dangerous as for a clay Buddha to play with water." Children often amuse themselves by making little Buddhist images of mud, which melt into shapelessness, of course, if placed in water.

here spring trees in full blossom, there a dreary winter scene, etc., etc., so that one has not really the time to respond to so many pleasant impressions."

T. SUZUKI.

AN ANCIENT SARCOPHAGOS.

Upon a tomb, a man and maiden fair,
His face the older, hers, in youth's clear glow,
Hand clasped in hand, together thus they stand
A picture speaking love for every land,
Perchance a stifled love like Angelo's :
An artist speaks in stone, a language true,
Heart answers heart and eye to eye replies,
When love is pure and high as heaven's blue sky.

FLORENCE PEORIA BONNEY.

ROME, November 1899.

SCIENTIA.

Under this title, the enterprising publishing house of Georges Carré and C. Naud, of Paris, has begun the issue of a unique and attractive series of memoirs on the scientific questions of the day. The idea of the series is not that of supplanting the special periodicals, which record the daily progress of science, but to supply philosophical and general expositions of recent discoveries and of the controlling ideas and vicissitudes of scientific evolution. It will enable every student of science to obtain brief but sound views of the work which is being carried on in neighboring branches as well as in his own. The editorship of the series is in the hands of well-known authorities, the physico-mathematical section being edited by MM. Appell, Cornu, d'Arsonval, Friedel, Lippmann, Moissan, Poincaré, and Potier all of whom are members of the Institute; and the biological section being edited by MM. Balbiani, Professor in the Collège de France, d'Arsonval, Filhol, Fouqué Gaudry, Guignard, Marey, and Milne-Edwards, also members of the Institute. Each of the little volumes, which are very tastefully bound in boards, comprises from 80 to 100 pages and costs 2 francs. Subscriptions to six volumes are 10 francs only. The following numbers have already appeared or are announced for immediate publication:

I. Physico-Mathematical Section: P. Appell, *Les mouvements de roulement en dynamique*; A. Cotton, *Le phénomène de Zeemann*; P. Freundler, *La stéréochimie*; A. Job, *Les terres rares*; G. Lippmann, *Détermination de l'Ohm*; Ch. Maurain, *Le magnétisme du fer*; H. Poincaré, *La théorie de Maxwell et les oscillations hertziennes*; Raveau, *Les nouveaux gaz*; Villard, *Les rayons cathodiques*; Wallerand, *Groupelements cristallins; propriétés optiques*; H. Laurent, *L'Élimination*.

II. Biological Section: M. Arthus, *La coagulation du sang*; L. Bard, *La spécificité cellulaire*; M. Bertrand, *Mouvements orogéniques et déformations de l'écorce terrestre*; H. Bordier, *Les actions moléculaires dans l'organisme*; Courtade, *L'irritabilité dans la série animale*; Yves Delage, and A. Labbé, *La fécondation chez les animaux*; Fabre Domergue, *Le Cytotropisme*; H. Frenkel, *Les fonctions rénales*; A. Gilbert and Carnot, *Les fonctions hépatiques*; Hallion, *Modifications du sang sous l'influence des solutions salines*; Hallion and Julia-

vasculaire des toxines microbiennes; F. Le Dantec, *La Sexualité*; A. Martel, *Spéologie*; P. Mazé, *Évolution du carbone et de l'azote*; M. Mendelssohn, *Les réflexes*; Poirault, *La fécondation chez les végétaux*; B. Renault, *La houille*; H. Roger, *L'infection*; J. Thiroloix, *La fonction pancréatique*; A. Van Gehuchten, *La cellule nerveuse et la doctrine des neurones*; and J. Winter, *La matière minérale dans l'organisme*.

The timely character of these little books will be seen from the foregoing simple enumeration of their titles, and it only remains to be added that, so far as the subject permits, the treatment has been in each case popular and is intelligible even to the non-scientific reader.

T. J. McC.

AN INTERNATIONAL PRIMER-CYCLOPÆDIA.

The first two volumes of the *Temple Primers*, which are designed to form a complete and trustworthy primer-cyclopædia of modern knowledge, have just appeared. They are the first of "a series of small volumes of condensed information introductory to great subjects, written by leading authorities, adapted at once to the needs of the general public, and forming introductions to the special studies of scholars and students." The enterprise is international in its character. Mr. Henry Bradley, joint-editor of the *New English Dictionary*, will write on *The Making of English*; Dr. Henry Sweet, the famous philologist, on *The History of Language*; Professor William Ramsay, F. R. S., the joint-discoverer of Argon, on *Modern Chemistry*; M. Gaston Paris, Member of the French Academy, on *Medieval French Literature*; Professor Villari, on *The Italian Renaissance*; etc., etc. The publishers have entered into close relationship with Messrs. Göschen, of Leipsic, whose excellent series of German primers has been mentioned at length in former numbers of *The Open Court*. The *Sammlung Göschen*, as it is called, has been very successful, and some of the numbers of this collection will be translated into English and incorporated in the Temple series. The subjects to be treated by German authors are: *The Human Frame and Laws of Health*, by Drs. Rebman and Seiler; *Plants, Their Structure and Life*, by Dr. Dennert; *Primitive Man*, by Dr. Hornes; *The Civilisation of the East*, by Dr. Hommell; *The Races of Mankind*, by Dr. M. Haberlandt; *Roman History*, by Dr. Koch; *Teutonic Mythology*, by Dr. Kaufman. The books will be illustrated with the necessary reproductions of diagrams and charts, and to judge from the two opening volumes of the series they will prove to be very attractive in form.

The *Introduction to Science*, which is the first number, by Alexander Hill M. D., contains portraits of Lord Lister, Lord Bacon, Lord Kelvin, Robert Boyle, Charles Darwin, and Sir Charles Bell. Dr. Hill's book aims at giving "an account in popular language of the scientific problems which are most prominent at the present time, and attempts to portray the attitude of mind of those who are engaged in solving them." The first section of the little book is devoted to general discussions of the character of science and scientific inquiry, the relation of philosophy to science, the classification of the sciences, the history of science, and the method of science. The author, in our opinion, has hardly been as successful in his treatment of first principles as he has been in the statement of the present problems of science, which takes up the second section of the book and treats of the age of the earth, the ultimate constitution of matter, the origin of species, the cause of the coagulation of blood, the function of nerve-fibres and nerve-cells, and microphytology. There are many statements in his discussion of first principles to which

most students of the philosophy of science would take exception, and which seem to be the expression of a certain agnostic attitude of thought with respect to the boundaries of science and philosophy and of science and religion,—an attitude which for some years has been characteristic of the "pure scientist."

The second volume of the series is a *History of Politics*, by Edward Jenks, M. A., Reader in Law to the University of Oxford, and is a very able summary of the history of politics as actually embodied in the political institutions of history. The author aims to give "a brief account of what men have *done*, not of what they have *thought*, in that important branch of human activity which we call Politics, or the Art of Government." After an introduction on types of society, the author takes up: (1) Savage Society; (2) Patriarchal Society (discussing tribal organisation, agriculture and the clan, industry and the guild); and (3) Modern (Political) Society (discussing the state and feudalism, early political institutions, the state and property, the state and justice, the state and administration, and varieties of political society). A short bibliography concludes the work, the first page of which is adorned by a picture of Westminster Hall and the old Houses of Parliament.

The price of the little volumes is 40 cents each,—not so cheap as the Göschen series, but certainly very reasonable. The publishers are, in New York, the Macmillan Co.; and in London, J. M. Dent & Co.

T. J. McC.

FRENCH SCIENCE AND PHILOSOPHY.

M. Félix Le Dantec, lecturer on embryology in the Sorbonne, is favorably known in scientific circles for his contributions to general biology and for his writings on the general chemical and physical theory of life. A new little book by him, therefore, on the *Lamarckians and Darwinians, a Discussion of Some of the Theories of the Formation of Species*,¹ will be welcomed by students as furnishing a succinct and trustworthy résumé of the modern theory of development. Darwin did not render justice to the work of his great predecessor, Lamarck, nor have Darwin's disciples shown much greater appreciation for the merits of the French thinker. By way of reaction, therefore, there has been a recrudescence of Lamarckian doctrines in the last two decades, and noteworthy contributions to science have been the result. American inquirers especially have adopted, developed, and even exaggerated the Lamarckian points of view. Taking a reconciliatory stand, now, M. Le Dantec proposes to show that neither point of view is absolutely correct, and that the fault of the two schools lies in their extreme exclusiveness. Personally he is of the belief that the general laws of biology, as already established can be deduced *a priori* from a knowledge of the *elementary* properties of living bodies, and he accordingly begins with an exposition of these elementary properties with the idea of leading the reader by a series of *purely logical* deductions to a knowledge of the fundamental principles which Darwin and Lamarck deduced directly from the *observation of the higher creatures* of the animal scale. The biological problems considered by the author relate mainly to the foundations of species, to the heredity of acquired characters, to mimicry, and to the bio-chemical theory of heredity.

* * *

The important problem of memory is treated in a new book by Dr. Paul Sollier. (*Le Problème de la Mémoire; Essai de psycho-mécanique*. Par Dr. Paul

¹ *Lamarckiens et Darwiniens, Discussion de quelques théories sur la formation des espèces* Par Félix Le Dantec. Paris: F. Alcan. 1899. Pages, 191. Price, 2 fr. 50.

Sollier. Paris: F. Alcan. 1900. Pages, 219. Price, 3 fr. 75.) The question of the nature of memory is a fundamental one in every philosophy, and from having been regarded formerly as a special and independent faculty of the soul, it has become in the light of modern research a property of living matter, and has been transferred thus from the domain of pure psychology to that of physiology. M. Sollier believes that we can go even farther and reduce psychical phenomena to the laws of physics by considering them as a special form of energy and by emphasising the *dynamic* associations in the mechanism of memory. He makes no claim to having formulated a mechanical theory of memory; he has merely attempted in his work, which he says is psycho-mechanical in character, to exhibit the *analogies* which exist between the different phenomena constituting an act of memory, and certain other phenomena which are purely physical in character and are produced by simple transformations of forces. More than establishing such an analogy, indeed, he could not expect to do.

* * *

The philosophy of laughter is attacked in a little book entitled *Le Rire: Essai sur la signification du comique*, by M. Henri Bergson, lecturer in the École Normale Supérieure (Paris: F. Alcan. 1900. Pages, 204. Price, 2 fr. 50). The reader will find numerous specimens of wit and humor collected in this work, with some attempt at methodical grouping and at exhibiting the artifices which humorists have unconsciously employed to produce laughter. Two dominant ideas characterise M. Bergson's theory: The first is that humor is the expression of the life of *human beings living in common*, and is always the result of a definite lack of adaptation of the individual to his social environment; the second is that the duty of the psychologist is to retrace the continuous thread of development along which one form of humor has been developed into another, rather than to crowd together into a single fixed definition the enormous variety of risible effects which we see produced in life. In performing this task, the author has emphasised the ever-wavering play of fancy and the association of ideas, and records his conviction that his theory is applicable to many problems of the philosophy of art.

* * *

M. Durand (de Gros) is a philosophical writer of considerable prominence in France, and a very recent work of his on Taxinomy, or the theory of classification, was received with many marks of approval by critics. His researches cover a long period of time, and are concerned with nearly every branch of theoretical biology, psychology, and metaphysics. In his newest publication (*Nouvelles recherches sur l'Esthétique et la Morale*. Paris: F. Alcan. 1900. Pages, 275. Price, 5 francs) he has attacked the problems of ethics and practical morality. The work was written some thirty years ago, but for various reasons remained unpublished. M. Durand (de Gros) now thinks the time ripe to give his reflexions to the public, and he has prefaced his meditations with some remarks upon the present need of a new analysis of ethical ideas and of a reconstruction of practical morality in France. He endeavors to discover the reasons for the present symptoms of decadence in his mother country, and discovers them in the non-adaptation of its religion to its needs. He believes that there is a *possibility* of regeneration in the case of any nation (witness, for instance, the Japanese), but he sees but one serious chance for the French to stem the current which is carrying them towards the abyss, and that sole chance is a truly broad and genuinely scientific solution of the religious problem, the moral problem, and the social problem. Neither Catholicism, Protestantism, nor positivism suffices for this end. The first is absolutely inept, the second

is self-contradictory in its attitude to modern science, and the third is too exclusively critical and negative. What is needed is a work of reconstruction, not of destruction, a work of theory and of technique, a work of study and of fruitful labor. That work must be based not upon eloquence or sentiment. We must cease to treat questions of philosophy in a literary and oratorical style, by mere phrases; but we must approach them with the same seriousness and application that every sensible man brings to bear upon his own private business and personal interests,—in fine, must treat these questions in the positive spirit, not in the positivistic spirit. M. Durand (de Gros) believes that he has laid the foundations for this task in the theoretical researches embodied in his book; he understands æsthetics in the Kantian sense of the general science of sensation, composed (1) of a psychological æsthetics, the science of the subjective causes of sensation; (2) of a physiological æsthetics, the science of the organic causes of sensation; and (3) a physical æsthetics, or the science of the objective causes of sensation. Upon this basis he develops a theory of objective æsthetics, a theory of pleasure and of utility, taking up in connexion with these subjects many detailed questions of practical morality, such as the conflict of duties, cases of conscience, etc.

* * *

We wish that space permitted us to make a longer notice of M. G. Vacher de Lapouge's work, *The Social Role of the Aryans*.¹ The book abounds in acute and common sense interpretations of the data of anthropology, and from a psychological point of view throws considerable light on the problems of race. The author begins by formulating or rather indicating his definition of the Aryan type, which is for him the dolichocephalic blond *Homo Europæus* of Linné, and it is important to note that he does not omit in his formulation to lay the greatest stress on intellectual and psychical characters. He discusses successively the problem of the origin of the Aryans, their prehistoric fortunes and their historical development, their psychology, sociology, and their future. He accounts for the varying destinies of the great national civilisations by the varying predominance of the Aryan race, attributing the former success of the Latin nations to the existence in them of a large majority of the dolichocephalic type, and their deterioration to the elimination of that type. His doctrine in this respect is a species of selectionism in which for example even ecclesiastical celibacy is a powerful factor in the elimination of brains and the power of initiative in Catholic countries. From the Middle Ages onward he discovers a steadily progressing inundation of the brachycephalic type in France, Spain, Italy, and Southern Germany. In France, it lost nine-tenths, and the best nine-tenths, of its area of habitation, until now but four-tenths of the population may be said to be of the purely Aryan stock. In Spain, the type was eliminated in the epoch of American discovery and through the influence of religious selection, until that country is to-day but the mere corpse of its former greatness, and affords the next natural booty of the great Aryan races after China and Turkey. The remarks upon the Jews, and their social rôle, are also not bad; the whole combining to make up a very interesting work.

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Starting from the view that anthropology and not sociology furnishes the adequate basis for a philosophy of human life, Dr. Daniel Folkmar, who was formerly professor of social science in Western Michigan College, and lecturer on sociology

¹*L'Aryen, son rôle social. Cours Libre de Science politique.* Professé à l'Université de Montpellier. Par G. Vacher de Lapouge. Paris: Albert Fontemoing, éditeur, 4 Rue le Goff, 1899. Pages, 565. Price, 10 fr.

in the University of Chicago, publishes in French a treatise on philosophical anthropology.¹ He has invented the term "philosophical anthropology" as designating a wider field of study than that formerly appertaining to the science of sociology and as expressing his conviction that sociology embraces not only the investigation of social phenomena, but also the investigation of the phenomena of individual life, which is the domain of anthropology. He makes no further claim for his work than that of being an introduction to a philosophy, a collection of suggestions and hypotheses which may or may not form part of a future system; and he has given us to this end something similar in its general aims and methods to the recent work of Dr. Paul Topinard's *Science and Faith*.

* * *

It is possible to obtain a very good knowledge of the philosophy of Spinoza from a little book of M. Émile Ferrière entitled *La doctrine de Spinoza: Exposée et commentée à la lumière des faits scientifiques*. (Paris: F. Alcan. Pages, 357. Price, 3 fr. 50.) The geometrical and literary scaffolding with which Spinoza enveloped his ideas has been entirely removed, and the essence of his doctrine alone is exhibited to view. The author has added commentaries to the obscure passages, a synoptic table of the tenets of Spinoza's philosophy, and two appendices,—one on the connexion of Stoicism with Spinozism, and one on the origin and elementary composition of our ideas, which contains strictures on certain phases of Spinoza's method.

* * *

Prof. Max Müller has found a new and ardent disciple in M. Moncalm, who has just written a work on the origin of thought and language (*L'Origine de la pensée et de la parole*, Paris: F. Alcan. 1900. Pages, 316. Price, 5 francs). Taking as his basis the dicta of his master that language is the autobiography of the human mind, the Rubicon which no brute will dare to cross, he has given a very able digest of the linguistic, philosophical, and evolutionary theories of the great Oxford thinker, combining them with the results of Noiré and with the theories of Darwin.

T. J. McC.

THE OLD SOUTH WORK.

The history of "The Old South Work" of the Old South Meeting-house, Boston, Massachusetts, has been recently told in a brochure of twenty pages by Mr. Edwin D. Mead, who remarks that the extent of the obligation which America owes to Mary Hemenway, the founder of the Old South Work, for her devotion to the historical and political education of our young people is something which we are only now beginning to appreciate. "I do not think it is too much to say," says Mr. Mead, "that she has done more than any other single individual in the same time to promote popular interest in American history and to promote intelligent patriotism." She saved the Old South Meeting-house in Boston, and contributed \$100,000 toward the fund necessary to prevent its destruction; and having saved it, she determined that "it should not stand an idle monument, the tomb of the great ghosts, but a living temple of patriotism." Lecture courses on American history which are entirely free to young people have been instituted, and in each case are given by representative men. In order to make American history more interesting and more instinct with life, the *Old South Leaflets* are issued at a price just

¹*Leçons d'Anthropologie philosophique: ses applications à la morale positive*. Par Daniel Folkmar. Paris: Schleicher Frères, 13 Rue des Saints-Pères. 1900. Pages, 336. Price, 7 francs 50.

covering the cost (five cents a copy), and brought to the attention of teachers of history over the whole country. They are now more than one hundred in number and contain reprints of such documents as the Constitution, the Articles of Confederation, the Declaration of Independence, Washington's Farewell Address, the Magna Charta; Franklin's Plan of Union; Washington's and Lincoln's Inaugurals; the Emancipation Proclamation; the Bill of Rights; the Constitution of Switzerland; the Petition of Rights; the Scottish National Covenants; Strabo's Introduction to Geography; Marco Polo's Account of Japan and Java; Columbus's Letter Describing his First Voyage and Discovery; Tracts of John Cotton, Roger Williams, and Cotton Mather; Letters of Washington and Lafayette. The last issue is the Prolegomena to Grotius's great work *De Jure Belli et Pacis*, "On the Rights of War and Peace." These leaflets are fulfilling an invaluable office in the historical education of our young people; they bring students into first-hand instead of second-hand touch with history, and their circulation should be encouraged in every way. (Old South Meeting-house: Boston, Mass.)

THE ASSYRIAN MONUMENTS AND THE SERMONS OF ISAIAH.

The story of the Assyrian Monuments is excellently told by Dr. Max Kellner, Professor in the Episcopal Theological School of Cambridge, in a recently-published brochure entitled: *The Assyrian Monuments Illustrating the Sermons of Isaiah*. The mounds from which these monuments were taken were well known to Oriental travellers, but it was not until 1842 that the work of excavating was begun by Paul Émile Botta, the French consul at Mosul, a Turkish town on the river Tigris. M. Botta unearthed the remains of the palace of King Sargon, the great Assyrian monarch, and found the huge winged bull-deities which guarded the palace gates, walls covered with bas-reliefs of sieges and battles, of hunting and sacrificial scenes, of demons in conflict, and cherubic beings in adoration before the sacred tree, and upon or below almost all of them long inscriptions in the cuneiform characters. As Dr. Kellner says: "It was a find to electrify the world."

M. Botta was followed by the Englishman Layard, who exhumed the palaces of Ashurnasirpal, Shalmaneser II. and Esarhaddon, in the mound of Nimroud. Botta and Layard, the pioneers in the field of excavation, were followed by Georg Friedrich Grotefend and Sir Henry Creswicke Rawlinson, the pioneer decipherers, who furnished the key for the reading of the cuneiform writings. The great library of Ashurbanipal at Nineveh, a room fifty feet long and twelve feet wide, was found filled with a collection of clay books of marvellous extent, covering every branch of learning known at the time—mythology, folk-lore, astrology, astronomy, geography, grammar, diplomacy, civil and administrative law, history and theology; and what is more, these clay books contain records of the more ancient Babylonian history and copies of the literary treasures of even pre-Semitic times. It may be readily conceived that this vast literature has thrown a wonderful and much-needed light upon the pages of the Old Testament, which is not primarily a history of the Jewish people, but rather a book of devotion for the teaching of spiritual truth, and in which the historical material was selected with this particular end in view. The relations between Assyria and Israel-Judah were very close. The latter nation lay between the empire of the Euphrates and the empire of the Nile, and acted as a sort of "buffer" in the great struggle for supremacy between these two world empires.

Such was the state of things during the life-time of the statesman-prophet Isaiah, whose sermons are full of illusions suggesting the situation. But what the Judæan prophet only hints at, the records of Assyrian history in the clay books recently exhumed give with detailed fulness, "bringing out the whole history into strong and impressive relief." It is this material that Dr. Kellner has gathered in the present pamphlet, in which he has given translations of such portions of the Assyrian inscriptions as bear upon Isaiah's sermons. The pamphlet is accompanied with suitable maps and with eighteen excellent half-tone reproductions of the monuments of the most important of the bas-relief inscriptions. (Boston: Damrell & Upham, Old Corner Bookstore. Price, paper, 50 cents.)

BOOK REVIEWS AND NOTES.

THE THEOLOGY OF CIVILIZATION. *Charles F. Dole*. New York: Thomas Y. Crowell & Company. 1899. Pages, xxiv, 256. Price, \$1.00.

This book is thoughtful, sincere, and suggestive. The author is convinced "that the world is good and not bad, that life is abundantly worth living, that man is marching the way of a great and beautiful destiny." Every man, he contends, carries with him a treasure of veritable religion. "Among all thoughtful men there is a belief, growing strong with years and experience, in the facts of a moral structure in the universe." And so society is shot through with religion. "There can be no sound political, social, or economical structure that does not rest on a religious foundation." The author regards it as an axiom "that just so far as religion has any value, it cannot fear the most searching and candid inquiry. How can any reality be hurt by men's questions? Do we fear the test of the assayer's retort for our gold ore? Do we shrink from the art critic's examination of a genuine masterpiece?" The author believes that the time for religious controversy is passed. "We have reached a point, through the labor of many thinkers, where we can now see the harmony of views that once seemed to be contradictory, and can therefore offer a broad and fresh interpretation, both ethical and uplifting, and more satisfactory to the conscience and to the intellect than any previous interpretation." In the struggle of the larger world where all religions and philosophies compete, the Christianity of the author's childhood seemed "to take on a grand, beautiful, and universal form, in which no element of sound thought, genuine feeling, or ennobling memory is left out. It is no longer exclusive of aught that has helped men in other forms of faith. It puts up no barriers against the devout Jew the honest Parsee, the friendly Buddhist or Confucian. If this is a growing world, it is not too much to expect that no form of Christianity since Jesus taught, and no form of theism since men began to think, could be so practical and workable as the new form which comes to us at the dawn of a new century—the inheritance of all the ages."

"What is the kind of thought out of which a noble civilisation may be constructed? This is what the world longs to know," says Mr. Dole. That thought must stand the characteristic test of truth in modern thought and reasoning, which he characterises in the following words: "How do we know a truth when we see it? We know it because it matches, fits, goes into the unity, 'makes sense.' To match and fit is to be true. But a lie fits nowhere; it separates, whereas truth binds. It is like the old story of Cain. There is no place where a lie can stay. The universe simply will not receive it. So with all the wrong things. They have

no dwelling-place. But the things right and true are fixed in the eternal structure of the world. Their patterns endure."

And in constructing our morals and religion we use precisely the same faculty as we do in constructing our science. "We have the same reason for trusting it in the one place as in the other. It is the same faculty by which the musician makes a harmony or detects discords, which, applied to moral conduct, pronounces one action wrong, that is, dissonant, or out of line, and another action right, fitting, or beautiful."

We wish that Mr. Dole could have carried his analysis farther on this last point, as also upon several others; he gives us rather intimations than reasonings; but this is the point of view of the practical moralist, and the sole aim of the book. There are good remarks on personality and egotism in the book. Its "theology" is that of Good Will; "no youth is educated till Good Will altogether possesses him." This is the supreme end. μκρκ.

Mr. Charles Morris has attempted in a little book just published by The Macmillan Company, of New York, and entitled *Man and His Ancestor*, "to present the subject of man's origin in a popular manner, to dwell on the various significant facts that have been discovered since Darwin's time, and to offer certain lines of evidence never before presented in this connexion, and which seem to add much strength to the general argument." The book is unillustrated, and seems to give a fair and unbiased synopsis of the chief points of view of evolution. (Pages, vi 238. Price, \$1.25.)

The same company published last year a work having a similar purport for the lower animals, by Dr. James Weir, entitled *The Dawn of Reason*. The author has sought here to epitomise the research of animal psychology in a clear, simple and brief form, avoiding technicalities and eschewing metaphysics. He claims to have thoroughly sifted and elaborated his material and assures the reader that he may depend upon the absolute truth of the evidence presented. The chapters of the book are entitled: The Senses in the Lower Animals; Conscious Determination; Memory; The Emotions; Æstheticism; Parental Affection; Reason; Auxiliary Senses; Letisimulation. Dr. Weir believes that he can safely assert and successfully maintain that "mind in the lower animals is the same in kind as that of man; that, though instinct undoubtedly controls and directs many of the psychica and physical manifestations which are to be observed in the lower animals, intelligent ratiocination also performs an important rôle in the drama of their lives. (Pages, xiii. 234. Price, \$1.25.)

The Leeds & Biddle Co., of Philadelphia, are the publishers of a pleasing little book entitled *Bushido, The Soul of Japan, An exposition of Japanese thought* by Inazo Nitobé. "Bushido" is the Japanese name for chivalry, and means literally, precepts of knighthood. The author tells what these precepts were and how they still form the basis of the morals and religion of his countrymen. (Pages, 127. Price, \$1.00.)

The *Biological Lectures* delivered in the year 1898 at the Marine Laboratory of Wood's Holl, Mass., have been collected into a volume published by Ginn & Co., of Boston. The lectures are of too special a character to receive detailed notice here, but it may be said that they are of more than usual importance, and will be a valuable addition to the library of the student of life. Price, cloth, \$2.90.

Outlines of the History of Religion, by John K. Ingram, LL.D., is a synopsis of the views expressed in Vol. III. of the *Politique Positive* of Auguste Comte. Mr. Ingram has made no claim to originality. He believes thoroughly in the mission of positivism; it has been the support and solace of his life, and he believes that he will not have done his duty if he passes away, as he soon must do, without giving public expression to his conviction that it is the one thing needful for society. Having tried its efficacy on his own heart and life, he now wishes to render the religion of the great French philosopher accessible even to the busiest reader. (London: Adam and Charles Black. 1900. Pages, 162. Price, \$1.25.)

The *Annual Report for 1897* of the Board of Regents of the Smithsonian Institution has been issued. The most important part of this volume consists of the papers describing and illustrating collections in the United States Museum. The subjects of these articles are: "Recent Foraminifera;" "Pipes and Smoking Customs of the American Aborigines;" "The Man's Knife among the North American Indians;" "Arrowpoints, Spearheads and Knives of Prehistoric Times."

The present year is the three-hundredth anniversary of the burning at Rome of Giordano Bruno, the Italian philosopher of the Renaissance, and one of the most interesting figures in the history of thought. The appearance, therefore, of a little paper-bound book treating of Bruno's philosophy and ethics, by Gustav Louis, is timely. The volume is written in German and published by Emil Felber, of Berlin. (Pp., 133. Price, 2 Marks.)

Mr. C. Th. Odhner has translated from the photo-lithographed copy of the Swedish MS., Emanuel Swedenborg's treatise *On Tremulation*, which was originally written toward the close of the year 1719 and was the first of Swedenborg's anatomical and physiological works. This is its first appearance in English. (Boston: Massachusetts New-Church Union, 16 Arlington St. 1899. Pages, xiii, 79. Price, 50 cents.)

According to the *Annual Report of the General Manager of Buddhist Schools in Ceylon for 1899*, the Buddhist educational movement in that island seems to be quite promising. The *Report* says they have now 134 schools under their own supervision with 60,598 boys and 4,892 girls. While the total amount of donations received in 1895 was estimated at Rs. 8,906, it has been increased this year even to more than twice that sum, viz., Rs. 20,721.70. The most serious obstacle they had to encounter hitherto has been overcome. Mr. Buultjens, the General Manager, says in his *Annual Report*:

"The opposition entertained at the outset by the various Protestant Missionary Educational Societies to our movement was supported at the time and encouraged by certain of the Government Inspectors of Schools and by the Director of Public Instruction, but I am glad to report that such hostility has been withdrawn. They now recognise our success and our stability and regard our workers as colleagues, instead of enemies, in the common task of uplifting the people by extending to them the blessings of education."

To raise funds for the furtherance of their educational work, they propose to hold a fancy bazaar at Colombo, on July 29, 1900. Agents in London, England, to whom donations can be sent are Messrs. C. W. Leadbeater and Jinarajadasa, 9 Sherborne Gardens, West Ealing.



NICOLAUS COPERNICUS.

(1473-1543.)

From a picture in the possession of the Royal Society, presented by Dr. Wolf of Dantzic, June 6, 1776. Engraved by E. Scriven.

Frontispiece to *The Open Court*

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COPERNICUS, TYCHO BRAHE, AND KEPLER.¹

BY CARUS STERNE.

IF we review the long line of fighters who freed the human mind from the oppressive bonds of its early subjection, two investigators, Copernicus and Kepler, always stand out prominently as leaders. These men, however, did not stand in the fore-front of battle; they worked in comparative obscurity; but they rank as real leaders through the weight of their investigations, and through the irresistible force of the proofs obtained by their patient observation of nature.

Although originally destined for the priestly office, each rose above the narrow principles of Church doctrine as received in theological lecture-rooms. Nor must it be forgotten that the Protestant camp from which Kepler came was at that time quite as intolerant as the Catholic, as witness the case of Michael Servetus, discoverer of the circulation of the blood. Indeed at the time of the rise of Copernicus, the Church of Rome felt itself still so firm and unshaken in its sense of power, that it believed it might grant considerable liberty in the observation and explanation of nature.

It must not be forgotten that a long time before Copernicus the old belief in the geocentric system was shaken, but the Church then acted as though this was a matter of no concern to her. Nicholas Krebs of Cusa (1401-1464) had made no secret of his conviction that the earth moves, and yet several popes had advanced him to the highest offices in the Church. Leonardo da Vinci speaks repeatedly, in his written notes, of the movement of

¹Translated from the German by Dr. David Eugene Smith, of the State Normal School Brockport, N. Y. The publishers are also indebted to Dr. Smith for having courteously placed at their disposal the originals of the portraits which adorn the present article. For the remaining illustrations they are under obligations to W. Engelmann, of Leipsic.

the earth as a matter of course. But all these views, differing from the prevailing teaching, had been only philosophical speculations



FROM AN OLD PRINT. A SCIENTIFIC INTERPRETATION.

which in part were awakened by the study of classical authors, in part were clarified by independent reflexion, yet did not rest upon

the foundation of thorough observations. To have made such supporting and confirming observations, with the simplest instruments and with untiring patience, remains the undying merit of Copernicus (1473-1543).

Through his uncle Lucas von Watzelrode, Bishop of Ermland, Copernicus was led to the priestly office, although in Cracow, besides his theological work, he was interested in mathematical and astronomical studies, in which Albert Bruzewsky was his teacher. The youth of twenty-three continued these many-sided occupations in Bologna, then the indispensable source of scientific knowledge. Insatiable in his thirst for learning, he then went to Padua where he added medical studies to the theological, mathematical, and astronomical which he had already pursued. From Rome, where he received a professorship at the university in 1500, our scholar, who apparently cared little for splendor and fame, returned to his bleak northern home. Here he obtained, through the mediation of his uncle, a position as canon in Frauenburg (1510), which allowed him to prosecute his astronomical researches in all tranquillity.

Since the year 1507 the thought had come to him and had become more and more fixed, that the old geocentric idea was false. Finally, through unremitting observations, he became convinced of the movement of the earth and the planets round the sun, not publishing his views, however, save to friendly astronomers or to amateurs, many of whom flocked to him for instruction and for the removal of their doubts. Copernicus possessed a universal mind similar to that of Leonardo da Vinci, a mind which seemed to succeed in all it undertook. He therefore was able to carry on the government of the Chapter after the death of his uncle, to appear as its representative at the Prussian diet, to undertake the regulation of the Prussian system of minting and coinage, to carry on the work of a popular physician in his district, and to advance to successful conclusion a difficult construction of some flood-gates. Just as thoroughly and systematically did he proceed in his observations of the heavens, so that his undying services to astronomy are in nowise prejudiced by such predecessors as Nicholas von Cusa. The views of the latter were still so confused that he seems never to have drawn even the most important of the consequences of the movement of the earth, namely, the immobilising of the sphere of the fixed stars.

In the year 1530 the great work of Copernicus, *On the Revolution of the Heavenly Bodies* (*De revolutionibus orbium coelestium, libri*

VII.), was finished in outline,—a work which prepared the way for a great revolution in thought. Of this work the Archbishop of Capua, Nicholas von Schönberg, who was of German extraction, and one of the sincerest admirers of Copernicus, is said to have received a manuscript copy in 1536. This good patron also encouraged Copernicus to publish the work, its contents being already so much talked of in learned circles. He is also said to have borne

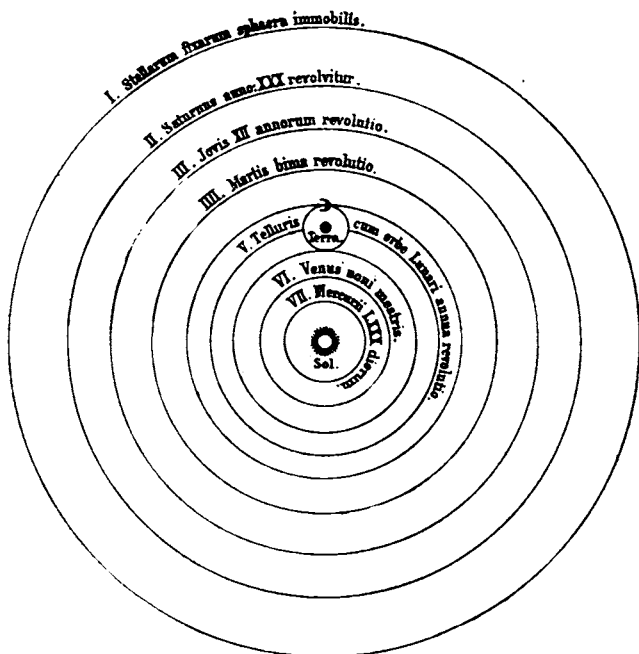


DIAGRAM OF THE COPERNICAN SYSTEM.

From Copernicus's work, *De revolutionibus* (1530).¹

Copernicus says: "The first and highest of all the spheres is that of the fixed stars, enclosing itself and the others and therefore immovable, being the place of the universe to which the motion and position of all the other stars are referred. Then follows the outermost planet, Saturn which completes its revolution round the sun in thirty years [the planets, Uranus and Neptune had not yet been discovered]; then Jupiter, which has a period of twelve years; then Mars, with a period of two years. The fourth sphere in order is that of the yearly revolution, and in it is contained the earth, having the orbit of the moon as an epicycle; in the fifth place, Venus revolves in nine months; the sixth place is occupied by Mercury, which performs its revolution in a period of eighty days. In the middle of all stands the sun: for who could think of another or better place in this most beautiful temple for so brilliant a luminary? The sun, thus, seated on its kingly throne, guides the movements of the stars that circle round it."

the cost of printing, and to have recommended the dedication of the work to Pope Paul III., one of the most ardent admirers of

¹ Reproduced from a cut in Friedrich Dannemann's *Grundriss einer Geschichte der Naturwissenschaften*, 2 vols. Leipzig: W. Engelmann.

astronomy. It was therefore probably scientific caution, rather than apprehension as to its reception by the Church authorities, that led Copernicus to defer so long the publication of this work. This is the more probable because, only a short time before (1533), the German astronomer Widmansstedt, who held similar views, had met with a kind reception from Pope Clement VII.

That he would find manifold and lively opposition among

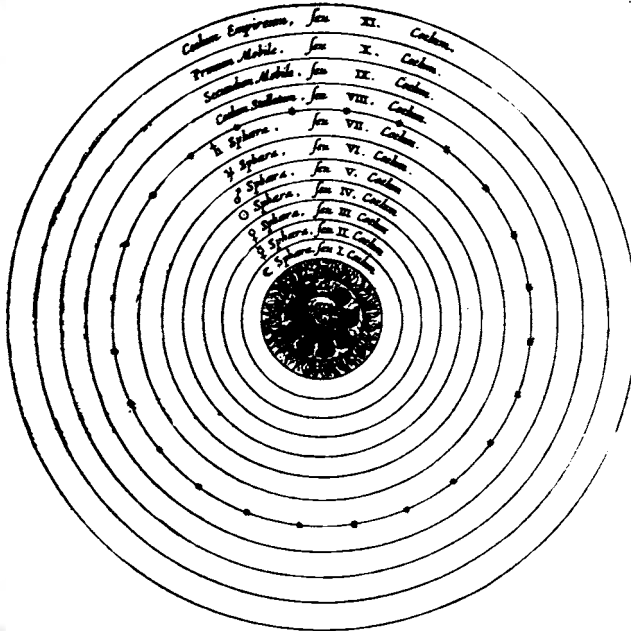


DIAGRAM OF THE PTOLEMAIC SYSTEM OF THE UNIVERSE (160 A. D.).

From Guericke's *De vacuo spatio*. (After Dannemann).

Reproduced for comparison with the system of Copernicus. The first sphere contains the moon, which has a period of revolution of one twelfth of a year; the second contains Mercury having a period of one fourth of a year; the third Venus, having a period of two thirds of a year; the fourth the sun, having a period of one year; the fifth Mars, having a period of two years; the sixth Jupiter, having a period of twelve years; and the seventh Saturn, having a period of thirty years.

Catholic and Protestant scholars and laymen, Copernicus must have understood from the very beginning. It is, however, remarkable that the first attacks of the Protestant spokesmen were almost more violent than those of the Catholic, and this may have been brought about by the well-received dedication to the Pope. It is known that Luther was one of the most determined opponents of the theory, and in the *Table-Talk* he says of the Canon of Frauenburg with little consideration :

thought clever, he must perforce make up something of his own, which has to be the best that is, just as he makes it. This fool will upset the whole Science of Astronomy. But the Holy Scriptures tell us, Joshua bade the *Sun* stand still and not the Earth."

One may well think from this that Luther followed the views of his friend Melanchthon, who was an ardent adherent of astrology, a science which remained, as we shall presently see, closely bound up with the geocentric theory. Luther, however, believed less firmly in astrology, and several times even declaimed vehemently against it, so that the accusations brought against him, that he made use of the astrological superstition of the time for his own ends, is probably not tenable.

Naturally there was no lack of satirical inuendoes against the new theory of Copernicus, which had become known long before the appearance of his work. To such attacks on the part of meddling critics Copernicus addresses himself in the dedicatory letter to Pope Paul III., published before the work appeared. Here he speaks, in a tone of perfect confidence, of those vain babblers who, without possessing mathematical knowledge of their own, would condemn his work because it was at variance with a few purposely distorted passages in the Bible. Thus did the holy Lactantius, in his ignorance, once childishy scoff at the spherical form of the earth; but the learned must overlook with contempt such objections of non-mathematicians. Just as boldly did he oppose prevailing prejudices by his eulogy of the new system, delivered with noble pride and self-confidence: "Through no other arrangement," he says, "have I been able to find such wonderful symmetry of the universe and such harmonious connexion of the orbits, as when I place the sun, the light of the world, as ruler of the whole family of circling stars in the midst of the high temple of nature, as though upon a kingly throne. Who indeed could find in all glorious nature a better place for the sun than that from which it can give light to the whole?"

It will be seen that in his works, which were finally given to the press, appearing however only after his death (which occurred on the following May 24), Copernicus spoke out with manly firmness for the truth of the results of his investigations. It is evident, too, that the supposition that he was spared by the ecclesiastical censor only because one of the editors (Andreas Osiander) had sent out in advance an anonymous preface, could be true only on the hypothesis that the censors had read neither the dedication to the pope nor the work itself. This preface of Osiander designated

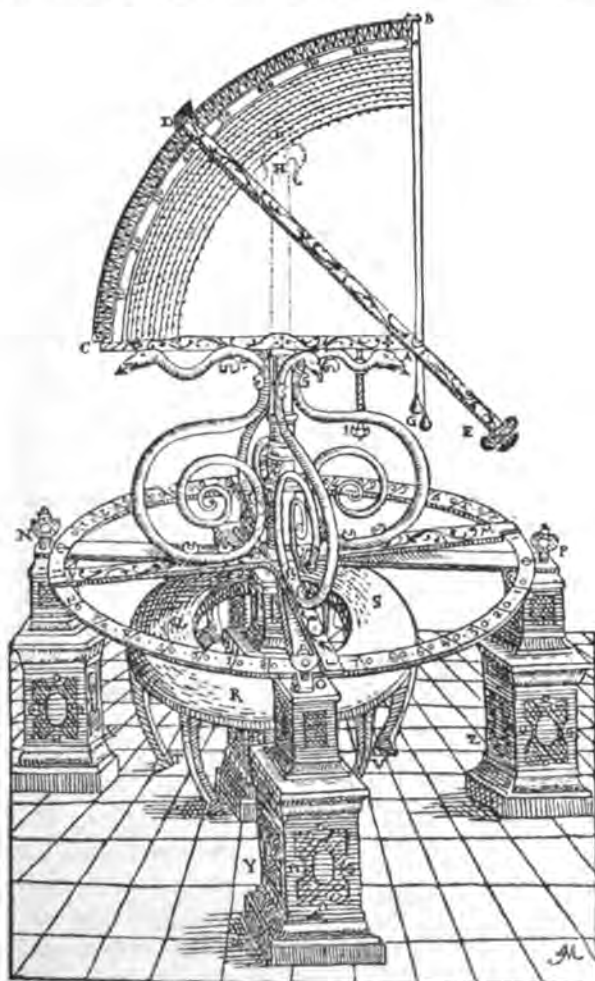


TYCHO BRAHE.

(1546-1601.)

(From a very rare print.)

the new doctrine as a mere hypothesis which "need be neither true nor probable," as it was to serve only to calculate more easily the phenomena of the heavens, and it is not probable that it was



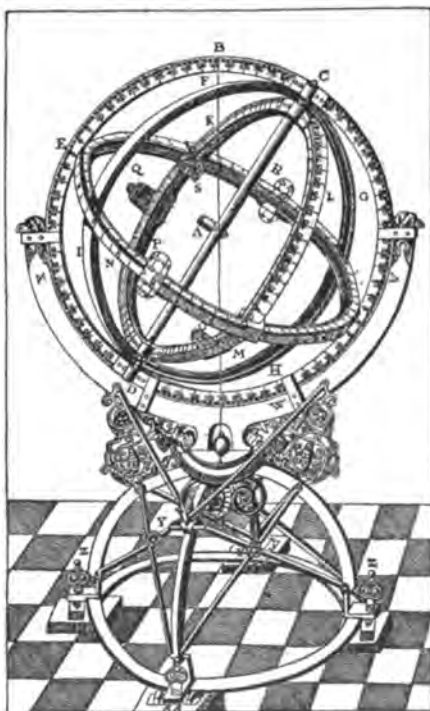
ALTAZIMUTH OF TYCHO BRAHE, THE ARCHETYPE OF THE MODERN THEODOLITE
(From Tycho Brahe's *De mundi aetherei*, Prague, 1603. After Dannemann.)

This beautiful instrument was constructed of brass and served for determining both azimuths and altitudes. The azimuth-circle, *NP*, rested on four pillars; the altitude-circle had a radius of almost two yards, and was provided with a scale of minutes, *BC*, and an alidade, *DE*.

added with the consent of Copernicus. He could not, however, protest against what had been done, as he received the first copy only on his death-bed.

The great successor of Copernicus in the field of observation was the Danish nobleman Tycho Brahe. In the estimation of the world he generally passes for the outspoken opponent of Copernicus, and as the inventor of a new cosmology which left the earth in the center of the universe, and made the sun and moon revolve around it, but the planets around the sun,—a system which has

been explained as a concession to the prevailing belief. But the traditional estimate of this admirable investigator, who pursued his studies in Leipsic, Wittenberg, and Augsburg, is a very unjust one. In point of fact, he was the most ardent admirer of Copernicus that could be imagined. In the *Sternen-burg* (*Uranienburg*) which his royal patron Frederick II. of Denmark had constructed for Tycho Brahe on the island Hveen, the picture of the Canon of Frauenburg, adorned with palms and laurels, occupied the place of honor in the room of state. When the heirs and successors of Copernicus heard of this worship, they sent as a gift the simple wooden instrument with which the latter had made his observations. Tycho celebrated the happy day of its reception (July 13, 1584) by



ARMILLARY SPHERE OF TYCHO BRAHE.¹

This instrument, like all the others of the great Danish astronomer, was manufactured in Tycho Brahe's own workshop. The elegance and exactitude with which they were executed in every detail, are beautifully shown by this illustration.

a Latin poem, in which it is said of Copernicus:

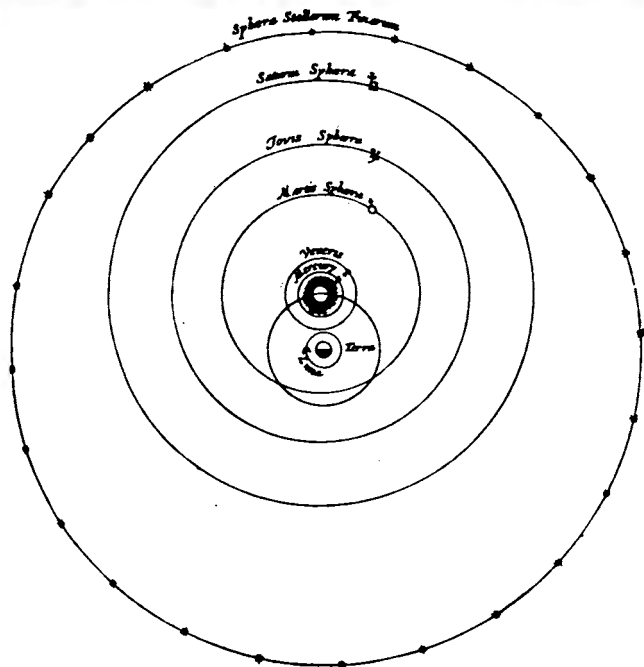
"He succeeded in snatching the sun from the heavens,
And placing it firmly. Around it then he guided the earth,
As around the earth the moon."

And of the instrument, which had no lenses:

¹From Gerland and Traumüller, *Geschichte der Physikalischen Experimentierkunst*, Leipsic W. Engelmann.

"... O monument of the great
And immortal man! You are perishable wood,
But shining gold will look on you with envy."

But Tycho had so improved this instrument, although he likewise had to do without lenses, and he was besides so sharp an observer, that he could not but perceive the defects still adhering to the Copernican system as well as the discrepancies between the facts and the calculations based upon it. Untiring observations of the orbit of Mars showed clearly that the *circles* assumed as the



TYCHO BRAHE'S SYSTEM OF THE UNIVERSE. (1587.)

This system occupies an intermediary place between the geocentric system of Ptolemy and the heliocentric system of Copernicus. In Tycho's system the earth is at the center; the sun, Mars, Jupiter, and Saturn revolve about the earth, while Mercury and Venus perform secondary epicyclical revolutions about the sun. (From Guericke's *De vacuo spatio*. After Dannemann.)

planetary orbits by Copernicus did not exist. Furthermore, Tycho found good reason to deny the third movement of the earth (around the pole of the ecliptic) presupposed by Copernicus. Hence he is not to be blamed if he held provisionally to his own system, which had in common with the ecclesiastical conception the geocentric idea only; for naturally he had never doubted the revolution of the earth on its axis.

Neither did Tycho Brahe ever publicly set up his system in opposition to that of Copernicus. His theory was not published until three years after his death, in a book appearing in Frankfort in 1604; and the essay contained in it "On the System of the Universe" is, probably with good reason, attributed to his pupil B. Ursus. The fruits of Tycho's labors did not ripen until later, after Kepler was able to build further on the foundation of these observations, the most exact that any astronomer had made before the discovery of the telescope.

Johannes Kepler (born December 27, 1571) was on account of his weak frame, like Copernicus, originally destined for the ministry; or rather we may say he had grown up into it, for his parents, having ended after various vicissitudes in life in keeping a tavern, had placed the boy in the school attached to the monastery of Hir-sau. From there he went to the school of the former Cistercian monastery Maulbronn, where in 1516 Dr. Faust is said to have taught Abbot Entenfuss alchemy and to have passed the last years of his life. We might believe that something of the Faust-spirit there descended upon the young man, who later removed to the seminary of Tübingen (1589) in order to study Protestant theology.

Kepler fortunately found at Maulbronn a fatherly friend and adviser in Michael Mästlin, a theologian versed in astronomy and an adherent of Copernicus. It is he whom Galileo also honored as a teacher, and who inspired Kepler with all the more interest for astronomy as his warm attachment to theology was repulsed by the extreme views of most of the other teachers there. In particular Kepler would not profess Luther's dogma of the omnipresence of the body of Christ, and as he was already suspected on account of his fondness for the stars, he seems to have been in a difficult position. Probably also he did not understand keeping his conviction of the truth of the Copernican system as secret as was necessary, as his cautious and timid teacher had done for years and also recommended to him. Accordingly serious conflicts soon arose, and Mästlin as well as several other teachers advised Kepler to give up his theological studies entirely and accept a position as teacher of mathematics at the Gymnasium at Graz, which was to be filled in the spring of 1594. Kepler, who was a zealous Protestant, even though not according to the strict Lutheran fashion, went unwillingly to the Catholic country, but he accommodated himself to circumstances and supplied the Styrian provincial almanac with all the astrological lumber which was at that time deemed to be the main requisite of a calendar.

It is remarkable and at the same time instructive to observe how Kepler, with his strong inclination to fantastic dreaming and



JOHANN KEPLER. (1571-1630).

Probably from contemporary sources.

to poetical ideas of things in general and their relations, wrested himself almost entirely free from the seductive allurements of the astrological craze of that time. It was apparently, next to his

mathematical vein, his religious conviction of the perfection of the structure of the universe that kept him from this aberration. The words of the Bible, that the universe is duly disposed according to number, measure, and weight,¹ which more than two hundred years later led the chemist of the Berlin porcelain factory, J. B. Richter, to the discovery of the stoichiometric relationships between the chemical elements, impelled him also to seek *the mathematical law of the structure of the universe*.

Led astray on this quest by his classical education, he first took up with the speculations of the Pythagoreans, who had alternately compared the five regular solids to the five worlds and to

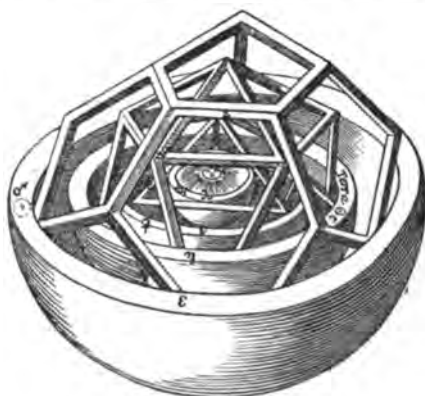


Fig. 1.

KEPLER'S CONSTRUCTION OF THE PLANETARY SPHERES.

Exhibiting the dimensions and distances of the planetary orbits by means of the five Platonic solids. (From Kepler's *Mysterium Cosmographicum*, Tübingen 1596. After Dannemann.)

Kepler says; "The orbit of the earth gives the circle which constitutes the measure of all the others. About this circle (η in the figure) describe a dodecahedron; in the sphere which encloses this solid lies the orbit of Mars (ϵ in the present figure). About the Martian sphere describe a tetrahedron; the spherical surface described about this solid would contain the orbit of Jupiter (see γ in Fig. 2). Describe about the latter a cube; the sphere enclosing the cube (α , Fig. 2, contains the orbit of Saturn. Further, construct within the terrestrial sphere an icosahedron; the spherical surface inscribed within the same contains the orbit of Venus (ι in the present figure). Describe within this last sphere an octahedron, and this body will enclose the sphere Mercury."

the five senses of man, and conjectured that by them possibly the five spaces between the six planetary orbits might be typified. He accordingly imagined the octahedron, icosahedron, dodecahedron, tetrahedron, and cube, placed successively one within another, with the sun at the center; and describing spheres between each

¹ Wisdom, II, 22.

two successive solids to touch the outer angles of the smaller and the inner surfaces of the larger, he conceived the great circles of these spheres to represent the orbits of the planets, and the spaces between them the distances of the orbits.

The unit for the orbit-distances was given by the orbit of the earth, which was assumed to be on the sphere between the icosahedron and the dodecahedron.

This device, when closely examined, will be found not unworthy of a poetising mathematician. As the mean distances of the orbits of the planets, not then known with the strictest accu-



Fig. 2.

KEPLER'S CONSTRUCTION OF THE PLANETARY SPHERES.

(For description see Fig. 1.)

α =the sphere of Saturn; β =the cube; γ =the sphere of Jove; δ =tetrahedron; ϵ =sphere Mars; ζ =dodecahedron; η =the sphere of the earth; θ =the icosahedron; ι =sphere of Venus; κ =octahedron; λ =the sphere of Mercury; μ =the sun.

racy, corresponded fairly well with those reckoned in this way, he was convinced that he had discerned the skilful plan of the architect of the universe, and accordingly he made known this cosmical secret in his maiden work, the *Mysterium cosmographicum* (1596).

Genuine enthusiasm for the perfection of creation as revealed by Copernicus had furnished the original incentive for all Kepler's

calculations and investigations, and so he begins his work with the following words :

"Inspired, full of holy joy, David cries aloud, calling upon the world itself : 'Praise ye him, sun and moon : praise him all ye stars of light.' But what voice has been bestowed upon the heavens, and what upon the stars, fit to praise God like that of man? Because they give reasons for praising God, we may say, they praise God himself. Since then we are endeavoring to make this voice of the heavens and of all nature more perceptible and clear, let no one say we are pursuing vain studies or exerting ourselves for naught."

After interpreting, as far as in him lies, this marvellous construction, and emphasising the lack of a planet between the orbits of Mars and Jupiter, his enthusiasm breaks forth once more in a lofty hymn, a few lines of which may here be quoted :

"Great Artist of the universe, with admiration I look upon the works
Of thy hands, which constructed them according to an ingenious plan.
In their midst the sun, dispenser of light and life,
Which curbs the earth according to sacred law and guides her
In her changing course. I see the toil of the moon,
And stars scattered on the infinite meadow. . . .
Sovereign of the world! Thou eternal power! Thine infinite glory
Soars on the wings of light through all the worlds!"

The impression of this work, which to-day possesses value only as a poem and picture of the fancy, was a very mixed one. Kepler's Tübingen teachers were not in accord with it. "God forbid," Professor Hafenraffer wrote (1597) with discernment but with kindness, "that you should ever try publicly to bring your hypothesis into agreement with Holy Scriptures; act, I beg of you, entirely as a mathematician and do not disturb the repose of the Church."

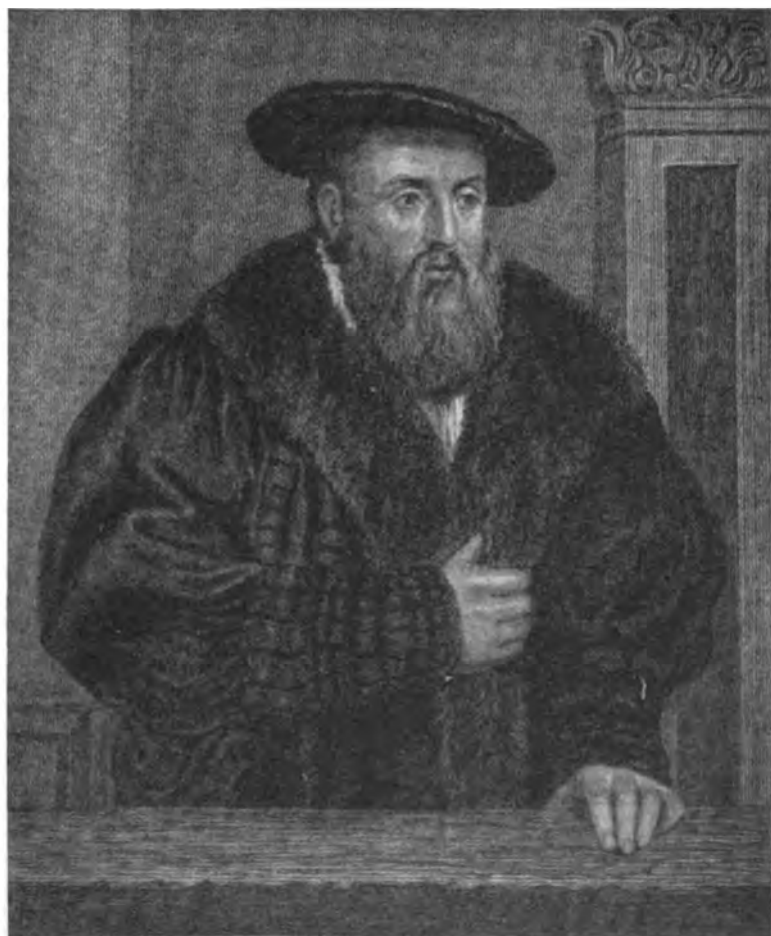
But Galileo wrote an enthusiastic letter dated the fourth of August, 1597 :

"I consider myself happy to know of so great an ally in the search for truth and consequently such a friend of truth itself. It is really pitiful that there are so few who strive for the truth, and care to depart from perverted methods of philosophising. But this is not the place to lament the wretchedness of our time; rather should I wish you good luck in those splendid investigations, by which you strengthen the truth. . . . I should risk publishing my own speculations, if there were more like you. But since this is not the case, I postpone it, for fear of sharing the fate of our master Copernicus, who although he has won undying fame with a few, has nevertheless with very many—so great is the number of fools!—become an object of ridicule and contempt."¹

The work was of great advantage to Kepler in that it brought the young astronomer to the notice of Tycho Brahe of Prague, and

¹ K. von Gebler, *Galileo Galilei und die römische Kurie*, Stuttgart, 1876.

caused him to invite Kepler to come to that place as his assistant. This was so much the more important for Kepler, as his position in Graz had in the meantime become untenable. In the year 1598 Archduke Ferdinand had, by an edict, banished all Protestant



JOHANN KEPLER.

From a picture in the collection of Godefroy Kraenner, merchant at Ratisbon.
Engraved by F. Mackenzie.

teachers and priests from Styria, and Kepler alone was allowed to remain, it was said through the intercession of the Jesuits, who needed his astronomical calculations for their missions in China. But in the year 1600 there was a repetition of the storm, and Kepler

might count himself happy in having found employment in the well-appointed observatory of the Hradschin at Prague.

But his position there with the haughty Danish astronomer, busy with the improvement of the Copernican system, seems not to have been the most agreeable. Indeed it would probably have become unendurable, owing to the great difference of temperament of the two men, had not Tycho Brahe's unexpected and early death (on the 23d of October 1601) put an end to this unsatisfactory alliance. The result was that Kepler was raised to the position of the imperial astronomer and mathematician. Not without manifold difficulties, however, did he come into possession of the priceless results of his predecessor's observations, which were to serve in the calculation of the Rudolphine Tables (of the movements of the planets). This material was so much the more indispensable for Kepler's labors, because on account of the weakness of his eyes he would never have been able to acquire it for himself. And even now it would have gone badly with his mission, had not industry been aided by imagination, that freest daughter of the mind, which raised him above the preconceived but respectable errors of his master, driving him incessantly into new combinations and conjectures. Thus we see that not the gift of observation and the art of calculating alone suffice for the making of great discoveries, but that science often has still more to gain from the consistent working out of hypotheses. On the other hand, Kepler was always irresistibly impelled to check the creations of his imagination by calculation. But he was successful in doing this only in three discoveries, namely those relating to the movements of the planets, which were alone sufficient to have made his name immortal. He dreamed, however, of many another, which it remained for Newton, and even for Laplace, to furnish a firm support.

It was above all the irregularities which Tycho Brahe had established in the revolution of Mars that attracted the attention of Kepler, and he gave voice to the conviction that "through the planet Mars we must reach the secrets of astronomy, or remain forever ignorant in this science."

In the preface to the *New Astronomy or the Commentary on the Planet Mars* (1609) he gives an account to the Emperor Rudolph of the result of the "struggle with the heathen god of war, in which General Tycho Brahe won the highest fame, inasmuch as he discovered in the night-watches of twenty years all the habits, positions, and stratagems of his enemy. O that he [Kepler] might now bring this most noble lord a prisoner before the Emperor!"

Copernicus had, as was before mentioned, believed that the planets move in circles round the sun, and from this assumption had arisen the appearance of irregularities in these orbits. Kepler now perceived that Mars and the other planets moved not in circular but in elliptic orbits round the sun, which therefore is not in the center of the orbit, but in one of the foci (*Kepler's first law*). At the same time he perceived that the planet hurries forward faster in its orbit in perihelion than in aphelion, but that the radius of rotation describes equal areas in the same time in all portions of the orbit. (*Kepler's second law*.)

He did not hesitate, in spite of the opposition made hitherto by the Church, to announce openly these great discoveries, which, as he rightly assumed, removed the last difficulties from the Copernican system of the universe. Accepting the Joshua miracle, he says that Joshua merely expressed wrongly his prayer commanding the sun to stand still, just as we still every day express ourselves wrongly when we say we wish the sun would soon rise above the horizon. He adds :

"In theology the weight of authority may decide, in philosophy we must have reasons. Holy is Lactantius, who doubted the spherical form of the earth ; holy is Augustine, who conceded this but denied the existence of antipodes ; . . . but holier to me is truth, when I, with all respect for the Church, prove by science that the earth is round, is inhabited by antipodes, is a little dot in the universe, and wanders among the stars !"

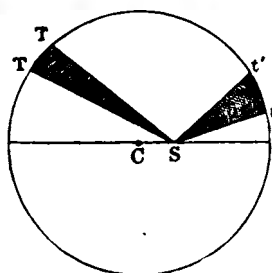


DIAGRAM ILLUSTRATING
KEPLER'S SECOND LAW.

If the distances tt' and TT' are traversed in equal times, then the segments $tt'S$ and $TT'S$ are equal in area.

Having now discovered in the law of areas a new confirmation of the structure of the universe according to number, he bent all his energies to find why the planets did not hasten round the sun with uniform swiftness in the more perfect circular orbit, but revolved, as he had found, with changing swiftness in elliptic orbits. Again it was a dream of the ancients that captivated his poet-soul, the Pythagorean dream of the harmony of the spheres, of the music of the universe, audible only to spirits specially blessed. By this means he hoped to reduce apparent anomalies to a mutual balance, to harmonise the courses of the planets, so that every dissonance which a single planet might produce when regarded outside of its connexion with the system, would be by such law removed from the celestial concert.

"Straying in this labyrinth of delusion," as a stern critic of these ideas would say, "at last, at last," he discovered on the 15th of May, 1618, at Linz, where he meanwhile had found a position as gymnasium professor, his third law. This is the law according to which the squares of the times of revolution of the planets are proportional to the cubes of the mean distances. This discovery followed upon a failure that calls to mind the discovery of universal gravity by Newton; for suddenly, as Kepler expresses himself, the perception of the truth triumphed "over the darkness of my mind with such conformity to my seventeen years' work on the observations of Tycho, that I at first thought I was dreaming and that I had taken for granted that which I was seeking."

Certain of his critics have utterly failed to comprehend this combination of dreaming and mathematical genius, and in regard to the discovery of the third law, have cried out: "Whence suddenly so much light after such deep obscurity?" (Bertrand.) They have also spoken of his gambler's luck; but Whewell has pointed out, in his *History of the Inductive Sciences*, that this combination of imagination and penetration is the peculiar characteristic of most great discoverers. He further notes that Kepler is distinguished from most of the others only in that he describes at length his mistakes and aberrations in his search for the truth, and admits that truth would now hide herself from his gaze, and again incite him to pursuit, like Virgil's Galatæa:

"Galatæa throws apples after me, the roguish maiden,
Then back she flies to the pastures, yet wishes first to be seen."

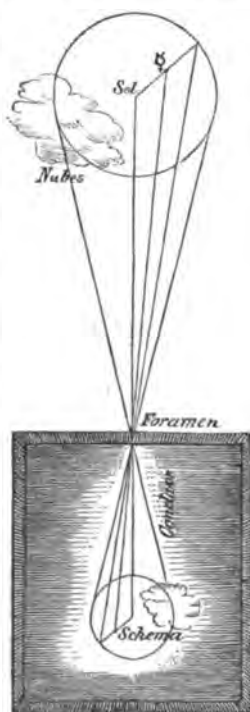
"We may be surprised," says Reuschle,¹ at Kepler's wonderful luck in disentangling truth from the wildest, most preposterous fancies; yet we *know* that with our hero the one is productive of the other, that both are strangely interwoven into a very singular whole." We must also agree with what Reuschle has said about his poetical bent and the enthusiasm that always reanimated his courage when extended calculations threatened to wear out his spirit, or his dire poverty seemed about to prostrate him. All his life long he was obliged to beg of Tycho Brahe, as well as of the emperor and the empire, for the salary rightfully belonging to him and for the money to print his books. Indeed, he met his death while on a begging expedition, made on foot, in early winter, to the imperial diet at Regensburg, November 15, 1630. He had to struggle not only with the opponents of Copernicus and Tycho,

¹ C. G. Reuschle, *Kepler und die Astronomie*, Frankfurt, 1871.

men like Chiaromonte, Riccioli, etc., but also with the most absurd prejudices of the people and with a fanatic priesthood. To add to all his misery, through the efforts of his own degenerate brother Christopher, his old mother was accused of witchcraft, so that she was saved from the stake only by the greatest exertions and after six years of legal contest.

Kepler was also forced incidentally to pay court to that "coquettish daughter of astronomy," astrology, both in Gratz and in Prague, in order to keep his court position and earn his living. This was done, however, with very little regard for her, and with bitter complaint that he must so play the charlatan. It all had its humorous side, however; he writes in one place: "This astrology is indeed a foolish little daughter, but—*lieber Gott!*—where would her mother, the highly rational astronomy, be, if she did not have this foolish offspring? The world is even more foolish, so foolish in fact, that this sensible old mother must for her own benefit cajole and deceive it, through her daughter's foolish, idle talk."

And although on the whole he was very fortunate in his prophecies, yet he says frankly: "Since the guessing is after all only a matter of Yes or No, we are sure to hit the mark half the time, and miss it only the other half. The successful guesses are remembered after the manner of women, but the failures are forgotten, because they are nothing peculiar, and so the astrologer is still held in honor." Even Wallenstein thought once of making Kepler his astrologer, and met him in Sagan, after he had lost his professorship in Linz through the expulsion of the protestants under Ferdinand II. But Wallenstein saw very well that Kepler did not believe in his own prophecies



KEPLER OBSERVES A SUN-SPOT WHICH HE ERRONEOUSLY TAKES FOR MERCURY.¹

¹*Opera Omnia*, II, 793. After Dannemann. This observation was made in 1607, before the invention of the telescope. Tradition, dating from the days of Charlemagne, asserted Mercury to be visible, when in conjunction, as a minute dark spot on the surface of the sun. Allowing the rays of the sun to pass through a narrow orifice in a dark chamber, Kepler saw in the image of the sun, caught on a paper screen, a minute flocculent speck, which he took for Mercury. It was a sun-spot.

himself, and so he gave him a professorship in Rostock instead, a position where he ran against the same old difficulty of work without salary.

In spite of all these distressing circumstances, Kepler was at least a fortunate man through his discoveries, and but few investigators can have tasted such hours of rapture as he. It was after the discovery of his third law, that he could write :

"But now nothing more holds me back ; a year and a half ago the first dawn, a few months ago the full day, a few days ago the pure sun of the most wonderful contemplation, have come upon me. Now I will revel in holy ecstasy ; now will I scoff at the children of men, with the simple avowal that I am stealing the golden vessels of the Egyptians, in order to build a tabernacle for my God, far distant from the land of Egypt. If they forgive, I shall be glad ; if they are angry, I shall bear it ; here I cast the die, and write a book to be read by my contemporaries or by posterity, it matters not ; it may wait for its reader thousands of years, since God himself waited six thousand years for him who should behold his work."

After this preface he unrolls in his favorite work, the *Harmonice mundi* (1619), a picture of the universe which would not cast discredit upon the greatest of poets. In the eyes of many the scheme, however, is discrediting to an astronomer, for it contains, besides many glorious thoughts and discoveries, fanciful speculations in regard to the earth-beast, its sleeping, waking, breathing, etc., as well as in regard to the spiritual relations of the heavenly bodies to one another. We may be allowed to quote a few more words from the epilogue, in order to show the beauty of the language.

"From the music of heaven to its hearers," he cries, "from the muses to Apollo, the great chorister, from the six circling planets, that discourse the music to the sun which in the midst of their orbits revolves about itself alone, without change of place !"

From the complete harmony obtaining between the smallest and greatest movements of the planets, from their strong tendency toward the center, Kepler inferred not only that the sun influenced the planets, but that the latter also reacted upon the sun, which he mystically designates as the contemplation and interchange of their homage.

"What the nature of that seeing or that perception, in short, the nature of that soul in the sun, may be, it is difficult to guess ; it is, however, true that the assumption of the six principal orbits around the sun, which do homage to the latter with constant revolutions, and above all the further existence of harmony, the trace of the highest wisdom doing homage in the solar system, compels me to the assertion, that not only *from* the sun does light go out into all parts of the world, life and warmth as from the heart, motion as from the seat of power and might, but that also, *vice versa*, these tributes of the most delightful harmony gather from all

provinces of the universe. In short, in the sun are found counsel and favor for the whole kingdom of nature."

This continual outbreking of poetical language gives to Kepler's works (of which we have received in modern times a model complete edition by Frisch¹) a living charm, and often lends to them a transporting power. He took occasion to speak in verse only in inspired moments, as in the lines given above from the *Mysterium cosmographicum*, and he then reaches such heights that he must be counted among the great "German classical authors," discovered by Daniel Strauss, "who wrote in Latin." Not seldom he was impelled to set forth his astronomical discoveries in the form of popular tales, of which we find several examples among his works, as for instance his story of Jupiter's satellites, of the star which had recently appeared in the Swan, and his "Dream of the World." Exceedingly vivid episodes are also frequently found in his other writings, as for instance in his work on the new star, which had appeared with great radiance in the foot of Serpentarius, in 1604. It was this appearance which raised again the question, whether the heavens could really be called unchangeable, according to Aristotle, when new stars actually appeared in it. Did this star originate recently from the light-exhalations of the universe, and if so, were perhaps all stars of the universe such incidental productions of fate? Against such assumptions, Kepler's deeply religious nature struggled, and the idea of Cicero came into his mind, that just as well might Homer's *Iliad* have been thrown together (as one would throw dice) from the twenty-four letters of the alphabet, as the harmony of the universe from a lot of whirling atoms.

"Yesterday, in the midst of my meditations," he writes, "I was called to the table, as my young wife was serving a salad. 'Do you think,' I asked, 'that if pewter dishes, lettuce-leaves, grains of salt, drops of oil and vinegar, with hard-boiled eggs, had been flying about in this room higgledy-piggledy since creation, chance would ever have been able to gather them together to-day into a salad?' 'Certainly not into so well and skilfully mixed a one as this,' answered my beautiful wife."



KEPLER'S
ASTRONOMICAL
TELESCOPE.²

¹ In eight volumes, Frankfurt, 1858—1872.

² Construction given in the *Dioptrica* (1610). After Dannemann. For the convex and concave lenses of the Dutch and Galilean telescopes Kepler substituted two suitably disposed convex lenses, giving an inverted but clearer image.

When to the newly discovered telescope, which in the beginning was very imperfect and was constructed on the principle of the opera glass, he had given the arrangement of the astronomical telescope still in use, he addressed the new instrument in the preface to his *Dioptrics* as follows: "O knowledge-fraught perspicil, more precious than any sceptre! Does not he who holds thee in his right hand, stand like a king and a master of the works of God?"

As often as I try to search out in the history of German investigation the prototype of the practical ideal of German philosophy, the ideal of Faust, who, wandering, but not confused, struggles forward to the solution of the great world-problems, I always come back again to Kepler, who, by his profound meditation, embodied as has none other, the specifically German bent of mind.

How proudly he asserts in his *Harmony of the World*, that he wrote this book as a German, according to the German manner and habit of philosophising, freely and without constraint. All his works and all his actions are in the most beautiful accord with this same reflective German spirit, which descends to the profoundest depths of speculation, yet ever remains self-conscious. He declined the call to Bologna because he was a German, and did not wish to renounce German liberty of speech and investigation; and although in constant distress in Prague, because of failure to receive his salary, he answered the invitation of the king of England, that only ingratitude could make him think of leaving Austria, his second fatherland. Without envy he recognised foreign merit, rejoiced over Galileo's discoveries, and admired in Copernicus still more than his learning, his "free spirit." Yet, if all who pass judgment on this German would do him like justice, they would have to say with Galileo: "While I hold Kepler in exceedingly high esteem on account of his fine unprejudiced mind, yet his manner of philosophising is radically different from my own."

THE NOTION OF A CONTINUUM.¹

BY PROF. ERNST MACH.

BY a continuum is understood a system or manifoldness of parts possessed in varying degree of a property *A*, such that between any two parts distant a finite length from each other, an infinite number of other parts may be interpolated, of which those that are immediately adjacent exhibit only infinitely small differences with respect to the property *A*.

There can be no objection to such a system, considered as a fiction merely, or as a purely arbitrary ideal construct. But the natural inquirer, who is not exclusively concerned with the purely mathematical point of view, is compelled to inquire whether there is anything in *nature* that corresponds to such a fiction. Space viewed in its simplest form as a succession of points in a straight line, time viewed as the succession of the elements of a uniformly sounding musical note, the succession of colors shown by the spectrum with the Fraunhofer lines obscured, are typical instances of the kind of continua presented in nature. If we consider such a "continuum" solely in the light of facts, it will be seen that there is nothing perceptible by the senses corresponding to an infinite number of parts or to infinitely minute differences. All we may say is, that in traversing such a succession, the differences between the parts increase as the parts move away from each other, until ultimately these differences admit of not the slightest doubt; and again, that as the parts approach each other the differences decrease, that afterwards it is alternately possible and impossible to distinguish them, according to chance and circumstances, and that finally it is altogether impossible to do so. *Points* of space and time do not exist for sense-perception; there exist for such, only spaces and times so small as not to admit of more minute division percep-

¹ Translated from the *Wärmelehre* by T. J. McCormack.

tible to the senses, or so small that we consciously neglect their size, although on increased attention they might admit of resolution into component elements. The possibility of passing imperceptibly and uninterruptedly from a property *A* to a property *A'*, sharply distinguishable from *A*, is the important point. The fact is, that any two terms on given trial are either distinguishable or undistinguishable.

It is possible to remove a large number of parts from a given sensory continuum without causing the system to cease giving the impression of a continuum. If we imagine a large number of narrow equidistant bands of color cut out of a spectrum, and the remainder pushed together until the parts touch, the spectrum will still give the impression of a color-continuum, in spite of the interruption of continuity in the wave-lengths of the lines. In like manner, an ascending musical note, if the intervals between the rates of vibration be sufficiently small, may be regarded as a continuum, and the jolting movement produced by a sufficiently large number of successive but detached stroboscopic pictures may also be made to appear as a continuous movement.

If the parts of a sensory continuum stood forth as individual entities and were distinguishable with absolute accuracy, the employment of artificial expedients, as the use of measures for comparing continua of the same kind and the use of dividing lines for rendering imperceptible differences of space distinct by means of conspicuous differences in color, etc., would be superfluous. But the moment we introduce such artifices as being superior physically for the indication of the differences, we abandon the domain of immediate sense-perception, and pursue a course in every respect similar to that of substituting the thermometer for the sensation of heat. A distance in which the measure is contained twice or three times, is then twice or three times that in which it is contained once; and the hundredth part of the measure corresponds to a hundredth part of the difference, although it may not be said that this difference holds good for direct perception. With the introduction of the measure, a new definition of distance or difference has been introduced. Judgments of difference are now no longer formed from simple sense-perception, but are reached by the more complex reaction involved in the application of the measure; and the result depends upon the issue of the experimental test. The consideration last adduced may be profitably called to the attention of that still large body of thinkers who refuse to admit that the

axioms of geometry are the results of experience,—results *not* given by direct perception when *metrical* concepts are introduced.

The employment of measures suggests the employment of numbers, but the use of the latter is not necessarily entailed until it is resolved to employ only one measure, which is multiplied or subdivided according as the necessity arises for a larger or smaller continuum of comparison. In using a measure divided into absolutely equal parts, we are immediately enabled to employ all the numeral experiences which we have gained from our study of discrete objects. This is not the place for a detailed discussion of the manner in which operations of counting themselves gave rise to the necessity of new numeral concepts far transcending the bounds of the original system of integer positive numbers and of the gradual manner in which negative and fractional numbers, and finally the entire system of rational numbers, came into being.

If a unit is to be divided, it must either exhibit natural parts for such a division, as for example do many fruits, or it must at least permit of being conceived as made up of perfectly homogeneous equivalent parts. The early appearance of unit-fractions is a probable indication that division was learned by experiences of the first-mentioned kind, and that the skill acquired in that field was carried over to cases of the second class, namely, to the division of continua. It is here apparent from the simplest instances that the number-system which originated from the consideration of discrete objects is inadequate for the representation of fluent or continuous states. For instance, the common fraction $\frac{1}{3} = 0.333333 \dots$. A point of trisection, in other words, can never be found exactly by decimal subdivision, however minute. The ratios of certain line-segments, as that of the diagonal to the side of the square, are absolutely unrepresentable by rational numbers, as Pythagoras long ago discovered,¹ and lead immediately to the concept of the irrational.²

The cases of this are innumerable. It may be expressed by saying that "the straight line is infinitely richer in point-individuals than the domain of rational members is in number-individuals."³ But the remark is applicable, as the illustration given above of the

¹ Euclid's ingenious proof of this proposition is found in his *Elements*, X, 117. Compare Cantor's views in his *Geschichte der Mathematik*, pp. 154, et seq.

² The irrational number \sqrt{p} is the limit between all rational numbers (1) the squares of which are less and (2) the squares of which are greater than p . In the first class no greatest, and in the second no least, number can be assigned. If \sqrt{p} is rational, the number in question is the greatest of the first and the least of the second class. Compare Tannery, *Théorie des Fonctions*, Paris, 1886.

³ Dedekind, *Stetigkeit und irrationale Zahlen*, Brunswick, 1892.

point of trisection shows, quite irrespective of the irrational feature, to every *special* number-system. We might say $\frac{1}{3}$ is a relative irrational number, as compared with the decimal system.

Numbers, which were originally created for the intellectual mastery of discrete objects, accordingly prove themselves to be absolutely inadequate for the mastery of continua which are conceived as inexhaustible, be these real or fictitious. Zeno's assertion of the impossibility of motion on account of the infinite number of the points that had to be traversed between the initial and terminal stations, was admirably refuted in this sense by Aristotle, who remarked that "a moving object does not move by numbers."¹ The idea that we are obliged to exhaust all things by counting is due to the inappropriate employment of a method which, for a great many cases, is quite appropriate. A pathological phenomenon of what might be called the counting-mania actually makes its appearance here. No one will be inclined to discover a problem in the fact that the series of natural numbers can be continued upwards as far as we please, and consequently can never be completed; and it is not a whit more necessary to discover a problem in the fact that the division of a number into smaller and smaller parts can be continued *ad libitum* and consequently never completed.

At the time of the founding of the infinitesimal calculus, and even in the subsequent period, people were much occupied with paradoxes of this character. A difficulty was found in the fact that the expression for a differential was never exact, save when the differential had become infinitely small,—a limit which could never be reached. The sum of non-infinitely small elements, it was thus thought, could give only an approximately correct result. It was sought to resolve this difficulty in all sorts of ways. But the actual practical uses to which the infinitesimal calculus is put are totally different from what is here assumed, as the simplest example will show, and are affected in no wise whatever by the imaginary difficulty in question.

If $y=x^m$, I find for an increment dx of x the increment

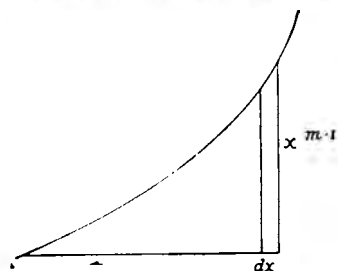
$$\begin{aligned} dy = mx^{m-1} dx + \frac{m(m-1)}{1 \cdot 2} x^{m-2} dx^2 \\ + \frac{m(m-1)(m-2)}{1 \cdot 2 \cdot 3} x^{m-3} dx^3 + \dots \end{aligned}$$

Having this result, it will be seen that the function x^m reacts in a definite manner in response to a definite operation, namely, that of

¹ Hankel, *Geschichte der Mathematik*, Leipsic, 1874, p. 149.

differentiation. This reaction is a characteristic mark of x^m , and stands on precisely the same footing as the bluish-green coloring which arises from dissolving copper in sulphuric acid. The number of terms that remain standing in the series is in itself indifferent. But the reaction is simplified by taking dx so small that the subsequent terms vanish with respect to the first. It is on account of this simplification only that dx is considered very small.

In a curve with the ordinate $z = mx^{m-1}$, it is seen that on increasing x by dx , the quadrature of the curve is increased by a small amount of surface, the expression for which when dx is very small



is simplified by reduction to the form $mx^{m-1}dx$. In response to the same operation as before, and under the same simplifying circumstances, the quadrature reacts as the familiar function x^m reacts. We recognise the function, thus, by its reaction.

If the mode in which the quadrature reacted did not accord with the mode of reaction of any function known to us, the entire method would leave us in the lurch. We should then have to resort to mechanical quadratures; we should actually be compelled to put up with finite elements; we should have to sum up finite numbers of these elements; and in such an event the result would be really inexact.

The twofold *salto mortale* from the finite to the infinitely small, and back again from this to the finite, is accordingly nowhere actually performed; on the contrary, the situation here is quite similar to that in every other domain of research. Acquaintance with mathematical and geometrical facts is acquired by actual employment with those facts. These, on making their appearance again, are recognised, and when they appear in part only, they are completed in thought, in so far as they are uniquely determined.¹

The manner in which the conception of a continuum has arisen

¹ It is well known that differentials may be avoided by operating with differential coefficients which are the limiting values of the difference-quotients. Timid minds which find solace in this mode of conception will be content to put up with the cumbrousness sometimes involved.

will now be clear. In a sensory system the parts of which exhibit fluxional characteristics not readily admitting of distinction, we cannot retain the single parts either in the senses or in the imagination with any certainty. To be able to recognise definitely, therefore, the relations obtaining between the parts of such systems, we have to employ artificial devices such as measures. The mode of action of the measures is then substituted for the mode of action of the senses. Immediate contact with the system is lost by this procedure; and, furthermore, since the technology of measurement is founded on the technology of counting, numbers are substituted for the measures precisely as the measures were substituted for direct sense-perception. After we have once performed the operation of dividing a unit into component parts, and after we have once noticed that the parts exhibit the same properties as the original unit, then no obstacle presents itself to our continuing in thought to infinity the subdivision of the number which stands for the measure. But in doing so we imagine that we have also divided both the measure and system that is measured, into infinity. And this leads us to the notion of a continuum having the properties which we specified at the beginning of this article.

But it is not permissible to assume that everything that can be done with a sign or a number can also be done with the thing designated by that sign or number. Admitting that the number which is employed to specify a distance can be divided into infinity without any possibility whatever of meeting with obstacles, still the possibility of such division by no means necessarily applies to the distance itself. There is nothing that presents the *appearance* of a continuum but may still be composed of discrete elements, provided only those elements be sufficiently small as compared with our smallest practically applicable measures, or provided only they be sufficiently numerous.

Wherever we imagine we discover a continuum, all we can say is, that we can institute the same observations with respect to the smallest observable parts of the system in question as we can in the case of larger systems, and that we observe that the behavior of those parts is quite similar to that of the parts of larger systems. The length to which these observations may be carried can be decided by experience only. Where experience raises no protest, we may hold fast to the notion of a continuum, which is in no wise injurious and represents a convenient fiction only.

THE SO-CALLED MYSTERY PLAYS.

BY E. F. L. GAUSS.

THE return during the coming summer of the Passion-Play at Oberammergau in Bavaria has revived and increased the interest in this most famous of all mystery-plays, perhaps more so in this country than elsewhere. It may be timely, therefore, to inquire into the history and nature of these plays, with special reference to the one above named, which dates in its present form from the year 1633, and has since then been repeated every ten years, save when adverse circumstances prevented its performance.

While religious plays of a similar nature existed before the Christian era, and some are known of more modern people other than Christians, it may be said that the Christian mystery-plays are as old as the story of Christ. From the beginning of the Christian services, there was more or less of a dramatic element in them, which has developed with the Church. This is due to the instinct in man to express his religious sentiments and feelings by act as well as by word, and is more or less shared by all religious services. Indeed, every art of man has grown out of this human impulse and need. Architecture, as an art, began with the erection of temples to the gods, giving painting and sculpture the necessary foundation and the opportunity for development. If it were not innate in these arts to give expression to the spiritually highest conception, there would not be the revolt against the realistic tendencies of our present time.

The pure dramatic art especially, representing the highest ideal types, not in colors and dead materials as sculpture and painting, but by imitation through living figures, has sprung from the unavoidable acting in religious services. We need only point to the worship of Dionysos by the Greeks, which consisted chiefly in mimic representations of the exploits of the god.

But as the religious conceptions grew from the crude to higher ideals, culminating in the dynamic God-idea of the Christian faith, so grew the ideals of dramatic representation upon the religious field. Whoever is familiar with the services and ceremonies of the Roman and Greek Catholic Church, must have been struck by the dramatic force in them. But especially on certain holidays of the Church, such as Christmas, the Feast of the Wise Men from the East, Palm Sunday, Good Friday, the day of Christ's burial, and



1. SATAN, ATTIRED AS A BISHOP, SLAYS THE PREACHER ZACHARIJAH WITH THE ASSISTANCE OF THE COOK.



3. THE SON IS SLAIN.



2. SATAN APPEARS IN DISGUISE AT THE VINTAGE.



4. SATAN ANNOUNCES THE DEATH OF THE SON AT THE MOUTH OF HELL.

SCENES FROM M. JACOB RUFF'S RELIGIOUS DRAMATISATION OF THE STORY OF JOB AND THE PARABLE OF THE VINEYARD.

Satan is introduced as sowing the seeds of sedition in the minds of the servants of the vineyard and induces them to slay the son of their master.¹

Easter Sunday, the services have unfolded from an early date into actual dramatic plays. Particularly striking among these in some

¹ Performed at Zurich, 1539 A. D., on May 26. From K  nnecke, after contemporaneous illustrations.

countries are the representations of Christ's entrance into Jerusalem on Palm Sunday and of his resurrection on Easter Day. In the latter, priests dressed as women approach the tomb, and upon hearing the assurance of the angel seated there, "He is not here, he is risen!" return to the altar, announcing to the assembled congregation: "Christ is risen!" The great processions of the Catholic Church are to this day dramatic representations of features in the life of Christ or in the history of the Church.

The mystery-plays in all countries were largely of the same character, since they have the same foundation and the same origin, the coloring only varying in small measure with the characteristics and peculiar religious conceptions of the people. They reached their climax in the latter half of the middle ages, when the perform-



GOD THE FATHER



SATAN



GOD THE SON

THE MAIN ACTORS IN THE MEDIÆVAL MYSTERY-PLAYS.

ance of the larger plays lasted several days. Their texts, taken from the Gospels and the legends of the Church, were mostly crude and, while generally written in the language of the country, profusely interspersed with Latin words and phrases. As a rule their authors were clerics, in most cases monks or nuns. But while the poetic value of the mystery-plays was but small, we may assume that they were all most excellently presented as to acting and scenic effect.

It is a remarkable fact, that the great solemnity of these plays did not protect them against the intrusion of jokes and comic intermezzos, for which an opportunity was offered in the part played by the devil, the deeds of Judas, and the bitterness of the Jews. The latter especially fared ill in these plays, and it may be supposed

¹ From *Bilderatlas zur Geschichte der deutschen Nationallitteratur*, by Dr. Gustav K  nnecke, Marburg, 1895, p. 93.

that their portraiture in them had not a little to do with the contempt in which the Jews were held in the middle ages.

The oldest of the passion-plays known is that of St. Gall, Switzerland, which came down to us from the fourteenth century. In England the mystery-plays were generally only performed in connexion with the processions on Corpus Christi day. In Austria, the Tyrol, and Germany, they were prevalent up to the eighteenth century, while in France a special community, the "Confrérie de la Passion," was founded for the purpose of producing and enacting passion-plays. From the north of France we have only mystery-plays of the fifteenth century, but these in large numbers. It is worthy of notice that while Italy is the centre of the Catholic Church, where its ceremonies are matters of daily observance and therefore most familiar to the people, we know of only one Italian passion-play, and that was published as late as 1888 at Turin.

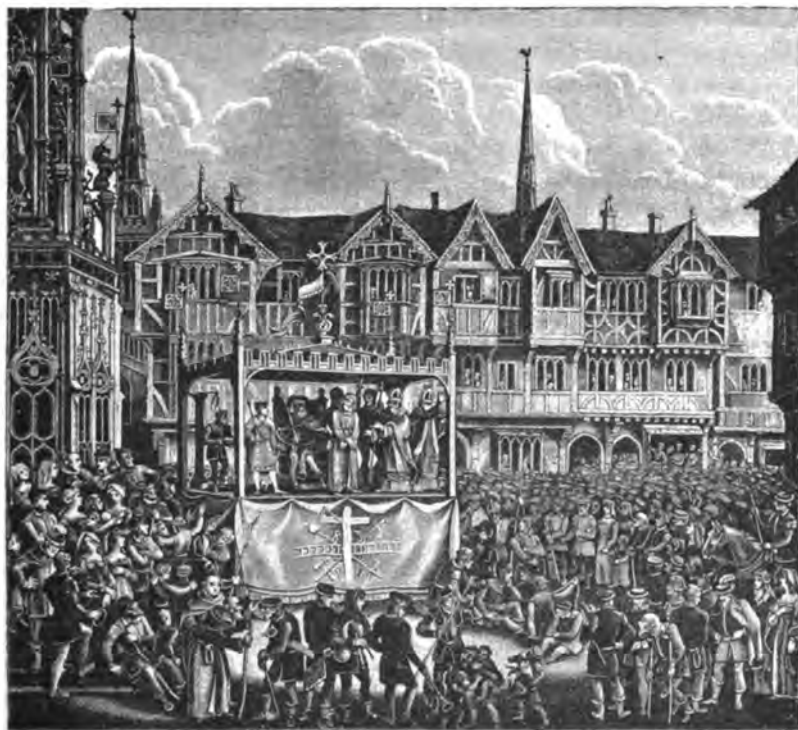
The performance of the mystery-plays was, as indicated before, originally part of the church-services and very simple. The performers were, as a rule, either priests or members of sacred orders, monks or nuns. The latter were at one time very prominent in them, because the Virgin and Mary Magdalene were necessarily represented.

One of the simplest among the early plays consisted in "The Lamentations of Mary" at the death of her son, forming the lyric introduction to the celebration of Easter. Soon, however, the mystery-plays became in a measure worldly, inasmuch as they were played by worldly companies in public places, generally at fairs and marts. In fact, the name of these latter in some modern languages, particularly in German, is derived from "missa" or "mass," because they ordinarily took place in connexion with the observance of the more important church-feasts.

On such occasions the mystery-plays were performed upon special stages, roughly erected in the market-places, or even more commonly in the street between the houses, extending from one side to the other. These stages ordinarily consisted of three divisions, *heaven*, *earth* and *hell*, which could be opened to rear and front, or on large places to all four sides, so that the performance could be witnessed by all the people gathered around the stage.

One of the most characteristic mystery-plays of the middle ages was that of the "Wise and Foolish Virgins," which was very popular for several centuries, especially in Germany. At the beginning of this play Christ (the "*dominica persona*," as he was called in most of the mystery-plays) appears in the uppermost part of the

stage (heaven), surrounded by Mary and the angels. Then the virgins come upon the scene in the middle part of the stage (earth). The story is played as it is related in Matthew with some additions, showing Mary interceding for the foolish virgins. Thereupon the lower part of the stage (the jaws of hell) hitherto closed, opens. Lucifer and a host of devils and of the damned are seen. They remind Christ that he had promised to be a just judge and claim



OLD ENGLISH MYSTERY PLAY.

As performed on a portable stage erected in a public market-place, usually on the occasion of some church festival.

the foolish virgins, who, after repeated vain intercessions from Mary, are delivered up to the Prince of Darkness, and are bound by the devils with chains, and dragged below. They disappear with the cry of despair, "We deserve the wrath of God, we are eternally lost!" while above, Christ, Mary, the angels, and the wise virgins are seen in blissful union. Thus ends the most dramatic of all mystery-plays of old. How powerful the effect of these plays was

upon the spectators, is shown by the case of Frederic, Landgrave of Thuringia, who, upon witnessing one of the performances of this play just described, fell into an hysterical state, which deprived him of his reason and caused his death three years after.

Aside from some minor performances connected with the services of the Catholic Church, nothing is left in our days of the old mystery-plays, except the great Passion-Play at Oberammergau, and in minor form in some other German and Swiss villages, refined and purified in conception as well as in its dramatic production. The town of Oberammergau itself is of historic interest. The Romans used the place as a trading-post and called it *Coveliaca*. It has always been a thrifty village latterly, especially in certain industries connected with the religious life of the Catholic people. It is not known whether mystery-plays were performed in the town in the middle ages or previously, but there are strong indications that such was the case.

However this may be, the fact is authenticated that in 1633 the present Passion-Play was first produced there. It came about in this wise: In the year named the plague visited that neighborhood and claimed a great many victims in the village. The inhabitants in their simple faith trusted that God would send them succor, and they made a vow to perform "the great atoning-sacrifice upon Calvary to the glory of God." The vow was enthusiastically participated in by all the people of the town and piously carried out. Miraculously—as the people looked upon it—the plague ceased, and in their gratitude to their deliverer and in their desire to perpetuate their thanks through their children, the godly peasants resolved to repeat the performance every ten years, the present year closing the twenty-sixth decade.

Originally the performances took place in the most primitive way at the cemetery of the village, but the play gradually attracted large numbers of people, who now flock to witness it from all parts of the globe, so that it soon became necessary to erect a play-house in the village and to repeat the play a number of times during the season. But not until 1890 was there anything but a board-fence surrounding the seats of the auditorium, beside the spacious stage, all uncovered. This year there is a large and commodious building, costing 62,000 dollars, with a seating capacity of from 4-5000, still partly without a roof, as is also the greater portion of the stage. The auditorium, fitted out with folding-chairs, is so well arranged that every foot of the stage is clearly in view from even the cheapest seat, and the acoustic properties of the hall are most perfect.

The stage is immense, representing chiefly the streets and buildings of Jerusalem at the time of Christ. Decorative paintings show the original "play-ground" upon the cemetery, the old commercial roads of the Germans and biblical scenes. Everything is most artistic.

The text of the Passion-Play was originally of the same crudeness that marked the early mystery-plays, and is claimed to have been written by one of the monks of the neighboring monastery of Ettal. In the course of time, however, the words were repeatedly improved, until the drama reached a high perfection in its present form, which was given it in 1850 by the priest of the village, Daisenberger. This pious man was for many years the spiritual guide of the villagers, and to his wise and energetic efforts and zeal is due the great interest of the entire world in the Passion-Play, which never fails to make a deep impression upon every spectator of whatever creed and views he may be. The performers are all people of the village, and those impersonating the more important characters generally play them a number of seasons, achieving thereby international reputation.

The present year will bring an almost complete change in the cast, and much is expected, especially of the two persons who bear the rôles of Christ and Mary. There is much music in the play, and the choruses are pronounced by experts exceptionally fine.

Oberammergau is very picturesquely situated between high mountains about 2550 feet above sea-level, and the highest of the mountains overlooking the village, the Kofel, is fittingly crowned by an immense stone-group of the Crucifixion, towering above the summit more than forty feet. This fine piece of sculpture was erected in 1875 by the admiring friend of the villagers, King Louis II. of Bavaria.

THE OLD AND THE NEW MAGIC.

BY THE EDITOR.

[CONCLUDED.]

AFTER the old magic had retreated to the dingy haunts of fortune-tellers and to the equivocal atmosphere of spiritualistic séances, leading the lingering life of a consumptive, modern magic developed rapidly and is now becoming more and more fascinating.

In speaking of modern magic, we refer to the art of the prestidigitator, and exclude from its domain the experiments of hypnotism as well as the vulgar lies of fraud. There is no magic in the psychosis of an hysterical subject who at the hypnotiser's suggestion becomes the prey of hallucinations; nor is there any art in the deceptions of the fortune-teller, whose business will vanish when the public ceases to be credulous and superstitious. The former is a disease, the latter mere fraud. Magic proper (i. e., the artifices of prestidigitation) is produced by a combination of three factors: (1) legerdemain proper, or sleight of hand; (2) psychological illusions, and (3) surprising feats of natural science with clever concealment of their true causes. The success of almost every trick depends upon the introduction of these three factors.

The throwing of cards is mere dexterity; Zöllner's famous figures of parallel lines having an apparent inclination toward one another is a pure sense-illusion (see the cut on page 426); so is the magical swing; while fire-eating (or better, fire-breathing) is a purely physical experiment. But it goes without saying that there is scarcely any performance of genuine prestidigitation which is not a combination of all these elements.

The production of a bowl of water with living fishes in it is a combination of dexterity with psychology. The bowl, covered with an India rubber membrane, hangs in a running sling fastened to a cord, at the back of the performer, who exhibits to the audience a napkin, and while showing them that it contains nothing by

spreading it out before their eyes, he bows slightly and slips the bowl into the napkin. Seizing the bowl and taking off the India rubber membrane together with the napkin is the work of a moment; and yet it is nothing but dexterity, so tempered with deception that the audience (unless initiated into the trick) cannot discover the cause of the bowl's appearance.

When a performer makes a dollar disappear by holding it up in his left hand and catching it with his right, we have a psychical illusion. The movement of the right hand merely diverts the attention, for the dollar remains in the left hand and is hidden, while the right hand in which every spectator expects it to be, is slowly opened and shown to be empty.

The trick with the glass dial (which is now exhibited by both Mr. Kellar and Mr. Hermann, the nephew of the late Alexander Hermann) is purely physical. The machinery used by them is apparently different, though Mr. Kellar's apparatus is the more perfect; for in neither case is any sleight of hand needed nor any psychological diversion, except in letting the accomplice behind the stage know the number to which he should point.

As an instance of a wonderful trick which is a mere sense-illusion we mention the magic swing, which is explained by Albert A. Hopkins in his comprehensive book on magic¹ as follows:

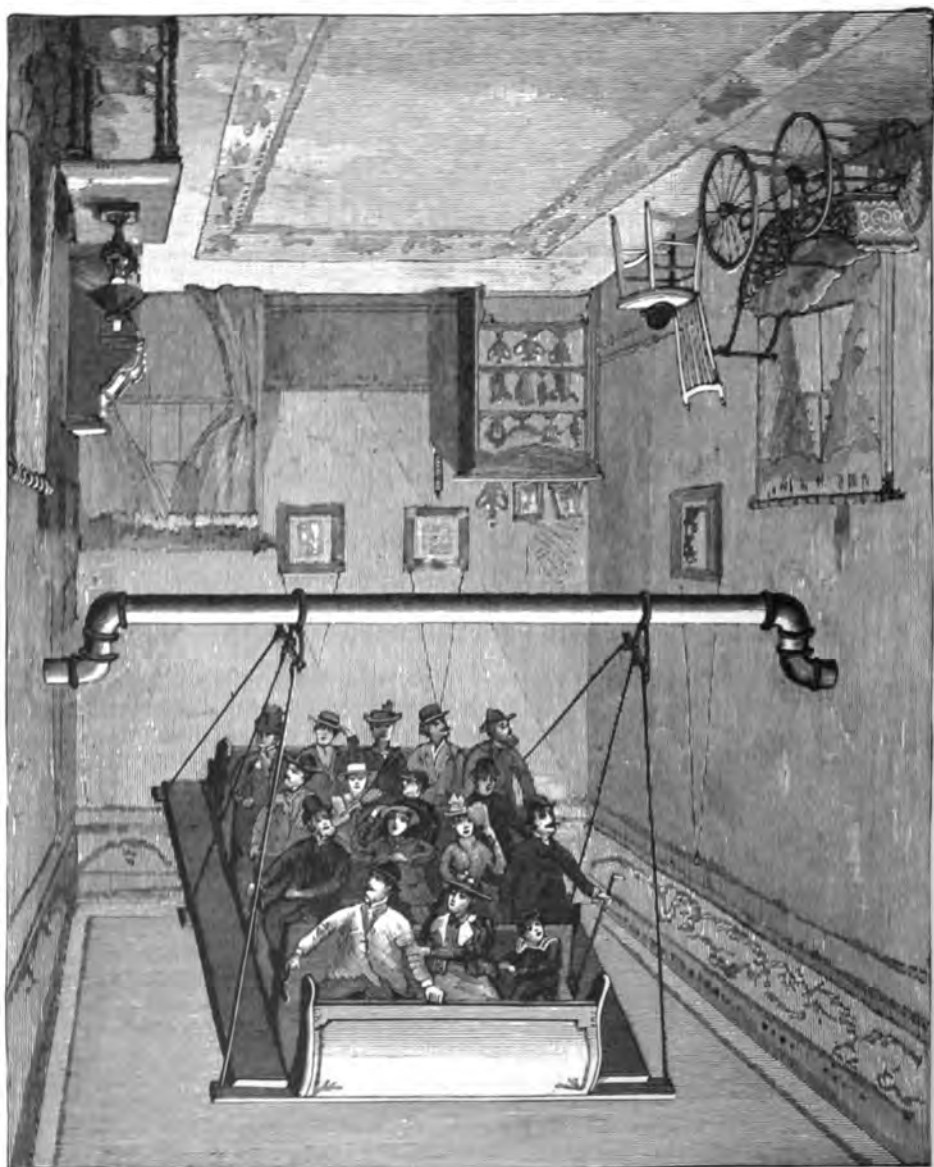
"Those who are to participate in the apparent gyrations of the swing—and there may be quite a number who enjoy it simultaneously—are ushered into a small room. From a bar crossing the room, near the ceiling, hangs a large swing, which is provided with seats for a number of people. After the people have taken their places, the attendant pushes the car and it starts into oscillation like any other swing. The room door is closed. Gradually those in it feel after three or four movements that their swing is going rather high, but this is not all. The apparent amplitude of the oscillations increases more and more, until presently the whole swing seems to whirl completely over, describing a full circle about the bar on which it hangs. To make the thing more utterly mysterious, the bar is bent crank fashion, the swing continues apparently to go round and round this way, imparting a most weird sensation to the occupants, until its movements begin gradually to cease and the complete rotation is succeeded by the usual back and forth swinging. The door of the room is opened, and the swinging party leave. Those who have tried it say the sensation is most peculiar."²

"The illusion is based on the movements of the room proper. During the

¹*Magic, Stage Illusions, and Scientific Diversions, Including Trick Photography.* Compiled and edited by Albert A. Hopkins. With 400 illustrations. New York: Munn & Co. 1898. Price, \$2.50. We noticed this book in the January number of *The Open Court*, but are glad to call our readers' attention to it again, as it will be a welcome addition to the library of those who enjoy the séances of our prestidigitators and would like to possess a work of ready reference on the subject.

²See the illustrations on pages 424 and 425. The illustration on page 424 shows the true position of the swing, that on page 425 shows the illusion produced by a ride in the swing.

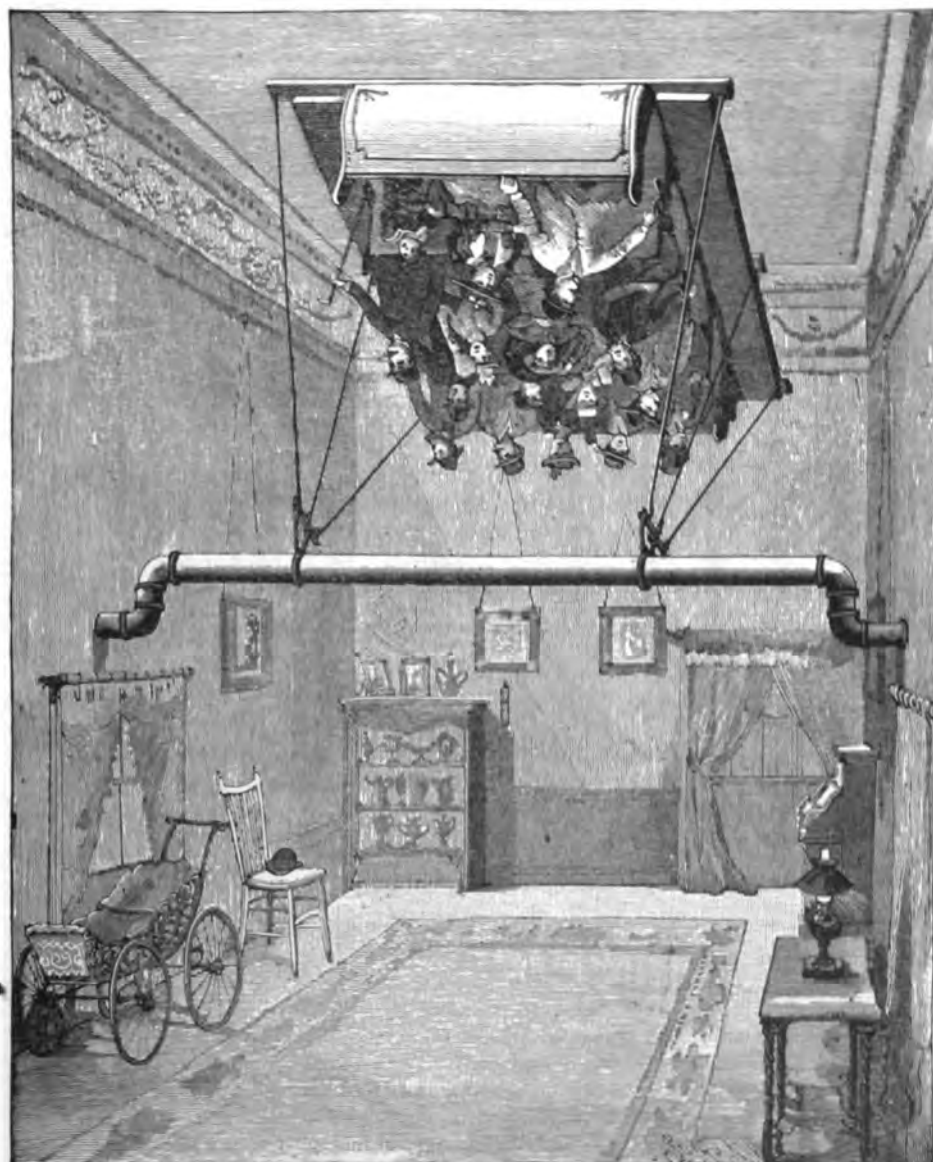
entire exhibition the swing is practically stationery, while the room rotates about the suspending bar. At the beginning of operations the swing may be given a slight



TRUE POSITION OF THE SWING.

push; the operators outside the room then begin to swing the room itself, which is really a large box journaled on the swing bar, starting it off to correspond with the

movements of the swing. They swing it back and forth, increasing the arc through which it moves until it goes so far as to make a complete rotation. The operatives

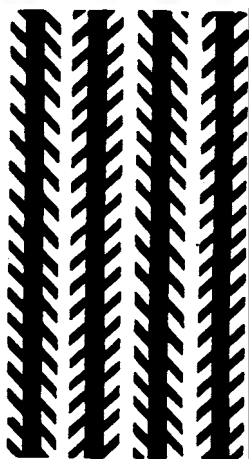


ILLUSION PRODUCED BY A RIDE IN THE SWING.

do this without special machinery, taking hold of the sides and corners of the box or "room." At this time the people in the swing imagine that the room is stationary

while they are whirling through space. After keeping this up for some time, the movement is brought gradually to a stop, a sufficient number of back and forth swings being given at the *finale* to carry out the illusion to the end.

"The room is as completely furnished as possible, everything being, of course, fastened in place. What is apparently a kerosene lamp stands on a table, near at hand. It is securely fastened to the table, which in its turn is fastened to the floor, and the light is supplied by a small incandescent lamp within the chimney, but concealed by the shade. The visitor never imagines that it is an electric lamp, and naturally thinks that it would be impossible for a kerosene lamp to be inverted without disaster, so that this adds to the deception materially. The same is to be said of the pictures hanging on the wall, of the cupboard full of chinaware, of the chair with a hat on it, and of the baby carriage. All contribute to the mystification. Even though one is informed of the secret before entering the swing, the deception is said to be so complete that passengers involuntarily seize the arms of the seats to avoid being precipitated below."



ZÖLLNER'S ILLUSION.

The illusion is purely an instance of misguided judgment, which is commonly but erroneously called illusion of the senses¹ and belongs to the same category as the well-known Zöllner figures mentioned above and consisting of heavy lines crossed slantingly by lighter lines. The heavy lines are parallel but appear to diverge in the direction of the slant. (See cut.)

To conjure ghosts has always been the highest ambition of performers of magical tricks and we know that the magic lantern has been used for this purpose since mediæval days. Benvenuto Cellini chronicles a strange story in his fascinating biography, which we recapitulate in Mr. Hopkins's words:

"Cellini, as guileless as a child in matters of science, desiring to study sorcery, applied to a Sicilian priest who was a professed dabbler in the occult art. One dark night they repaired to the ruins of the Coliseum at Rome; the monk described a circle on the ground and placed himself and the great goldsmith within its mystic outlines; a fire was built, intoxicating perfumes cast on it, and soon an impenetrable smoke arose. The man of the cowl then waved his wand in the air, pronounced sundry cabalistic words, and legions of demons were seen dancing in the air, to the great terror of Cellini. The story of this spirit séance reads like an Arabian tale, but it is easily explainable. The priest had a brother confederate concealed among the ruins, who manipulated a concave mirror, by means of which painted images were thrown on the smoke."

¹ For an explanation of similar cases of misguided judgment see *The Monist*, Vol. III., p. 152.

The same author describes the further perfection of the art of conjuring ghosts by Robertson and then by Mr. Pepper, as follows :

"In the height of the French Revolution, when the guillotine reeked with blood and the ghastly knitting-women sat round it counting the heads as they fell into the basket, a Belgian optician, named Etienne Gaspard Robertson, arrived in Paris, and opened a wonderful exhibition in an abandoned chapel belonging to the Capuchin convent. The curiosity-seekers who attended these séances were conducted by ushers down dark flights of stairs to the vaults of the chapel and seated in a gloomy crypt shrouded with black draperies and pictured with the emblems of mortality. An antique lamp, suspended from the ceiling, emitted a flame of spectral blue. When all was ready a rain and wind storm, with thunder accompanying, began. Robertson extinguished the lamp and threw various essences on a brazier of burning coals in the center of the room, whereupon clouds of odoriferous incense filled the apartment. Suddenly, with the solemn sound of a far-off organ, phantoms of the great arose at the incantations of the magician. Shades of Voltaire, Rousseau, Marat, and Lavoisier appeared in rapid succession. Robertson, at the end of the entertainment, generally concluded by saying : 'I have shown you, citizens, every species of phantom, and there is but one more truly terrible specter—the fate which is reserved for us all.' In a moment a grinning skeleton stood in the center of the hall waving a scythe. All these wonders were perpetrated through the medium of a phantasmagoric lantern, which threw images upon smoke."

The art of conjuring ghosts was perfected when the introduction of large show windows called Professor Pepper's attention to the usefulness of glass as affording a transparent mirror. Mr. Hopkins says :

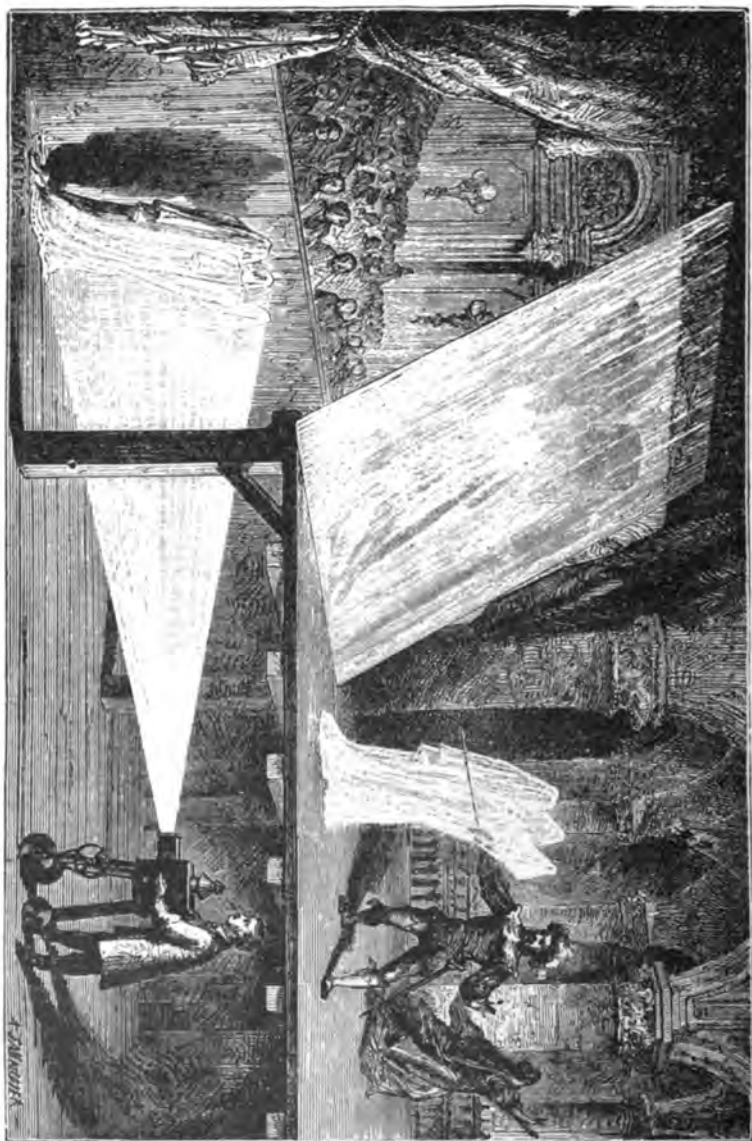
"Clever as was Robertson's ghost illusion, performed by the aid of the phantasmagoric lantern, it had one great defect : the images were painted on glass and lacked the necessary vitality. It was reserved for the nineteenth century to produce the greatest of spectral exhibitions, that of Professor Pepper, manager of the London Polytechnic Institution. In the year 1863, he invented a clever device for projecting the images of living persons in the air. The illusion is based on a simple optical effect. In the evening carry a lighted candle to the window and you will see reflected in the pane, not only the image of the candle but that of your hand and face as well. The same illusion may be seen while travelling in a lighted railway carriage at night ; you gaze through the clear sheet of glass of the coach window and behold your "double" travelling along with you. The apparatus for producing the Pepper ghost has been used in dramatisations of Bulwer's "Strange Story," Dickens' "Haunted Man" and "Christmas Carol," and Dumas' "Corsican Brothers." In France the conjurers Robin and Lassaigne presented the illusion with many novel and startling effects."

The illustration on page 428, reproduced from Carl Willmann's work, sufficiently explains all details.

The Indian basket trick is a shocking performance, still practised in Hindustan in the open streets. A child is placed in an oblong osier basket strapped so tight that it cannot escape, then a sword is thrust into the basket, which on being withdrawn drips

with blood. The audience is terror-stricken, but when the basket is opened it is found empty.

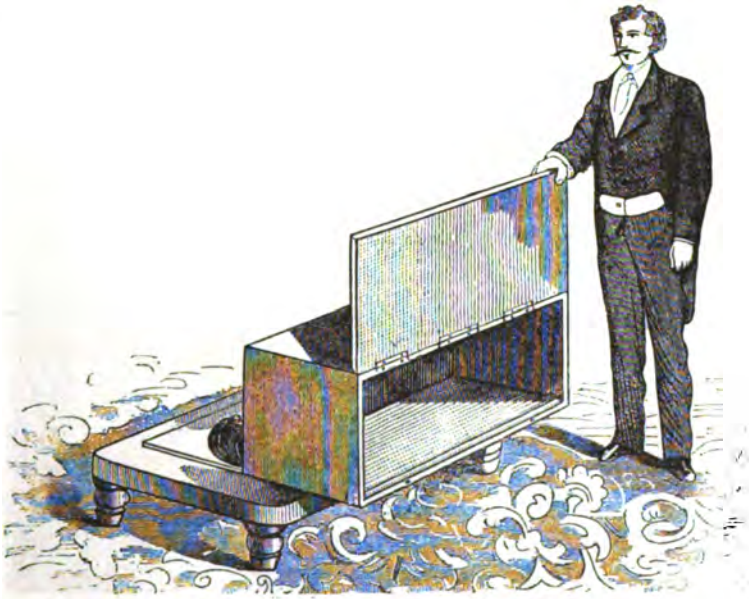
APPARATUS FOR PRODUCING PROFESSOR PEPPE'S GHOST.



The explanation is simple. The performer has several assistants of similar appearance around him, all of them dressed nearly

alike. The child crawls out through an unnoticeable slit where two ends overlap; and while the conjurer puts his knee against the basket, apparently to fasten the strap as tightly as possible, the prisoner hides under his flowing robe and then joins the other assistants.

Herr Willmann describes practically the same trick under the title "Spirit box," designed to prove the permeability of matter. A medium is placed in the box, and after some hocus-pocus the manager reopens it and declares it to be empty; for the purpose of proving his assertion he turns it over toward the public, and when



THE "SPIRIT-BOX," OR MYSTERIOUS TRUNK.

the lid is opened, the medium, who remains all the while in his place, has become invisible, because he is hidden by the interior part of the double wall, which now seems to be the bottom of the box. The box stands upon a podium, in order to show that the medium could not have escaped through the floor. The adjoined illustration reveals the secret of the trick, the explanation of which is as simple as the effect is surprising.

On stages which allow the prestidigitator to use traps, a trunk is placed so as to allow the prisoner to escape through the floor. The movable wall of the trunk in such a case swings round an axis

which lies parallel with the rope that is afterwards fastened round the trunk. The movable wall in the trunk connects with a trap in the floor, and while visitors from the audience closely watch the

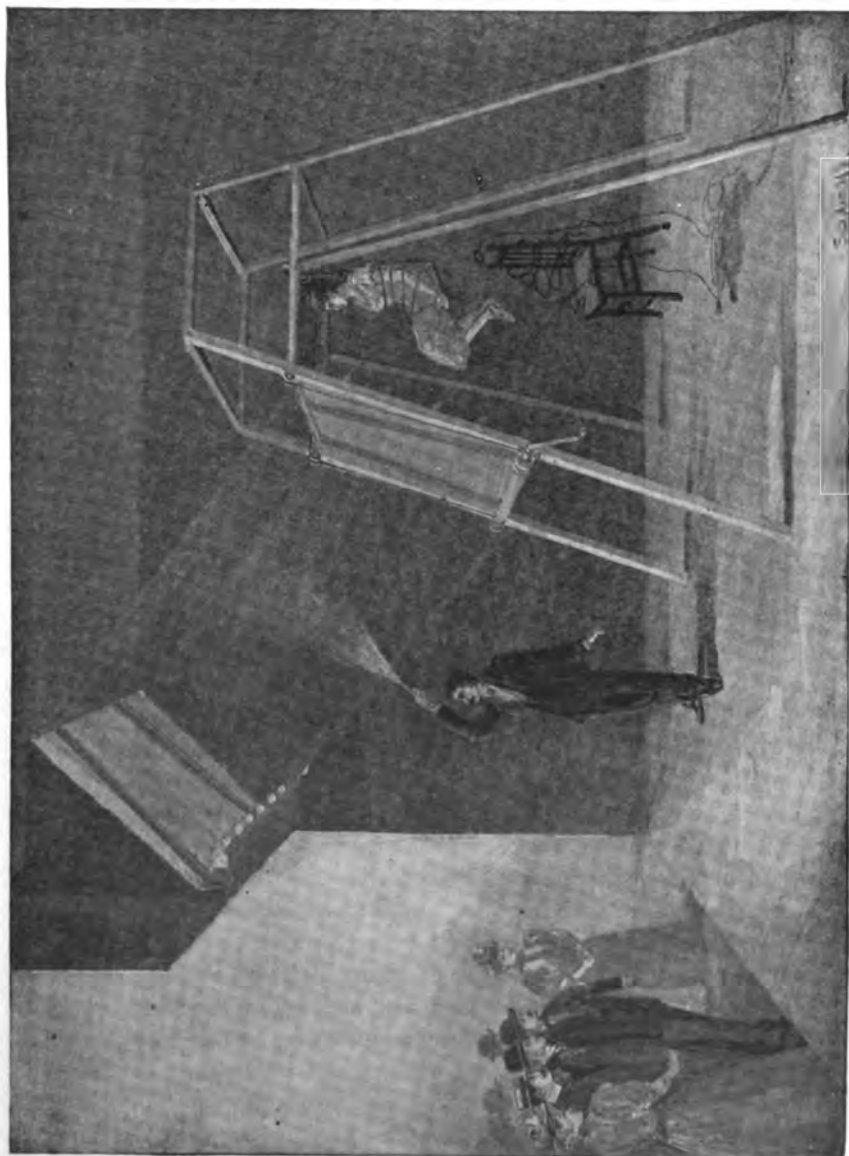
THE MYSTERIOUS TRUNK OPERATED THROUGH A TRAP IN THE STAGE.



fastening, the enclosed person makes his escape with the greatest ease.

Kellar has still another method of making a person disappear,

which being done in full view of the audience is extremely perplexing. The trick was invented by Mr. W. E. Robinson, the assistant



of the late Hermann and is based upon the same device as Professor Pepper's ghosts. Mr. Hopkins describes it as follows (see the above illustration):

"When the curtain is raised the square frame is seen; this frame is braced laterally by side pieces. At the lower part of the frame, within easy reach of the prestidigitator, is a windlass. Ropes pass from this windlass, over pulleys, to a crossbar in the upper part of the frame. A lady is now brought upon the stage and seated in a chair, which she grasps tightly. She is then tied tightly to the chair with ropes, and her hands are chained together. The prestidigitator now secures the chair, with its fair occupant, to the ropes which are connected with the windlass, by means of hooks which fasten to the top frame of the chair. The professor of magic now winds away at the windlass and raises the chair until the head of the victim is on a level with the crossbar. He then discharges a pistol, and at the same instant the lady disappears and the chair drops to the floor. Such is, in brief, the mode of operation of the trick called 'Gone.'"

The explanation is simple. The frame is covered between the cross bars with plateglass which is invisible and leaves the lady on the chair in full sight so long as the light falls upon her. A screen of the same color as the background is concealed above the curtain and placed at such an angle as to allow its reflexion to pass out to the audience. The prestidigitator fires several shots from a pistol, which is a signal for his assistant to turn a switch. The lady is now veiled in relative darkness while the screen is illuminated and its reflexion on the plate-glass conceals her from sight. She drops the chair, which, like the shots, helps to divert the attention of the audience, and the curtain drops before further investigation can be made. The illusion is perfect, and the more watchful the public are, the more will they wonder how a person can disappear so completely and suddenly before their eyes.

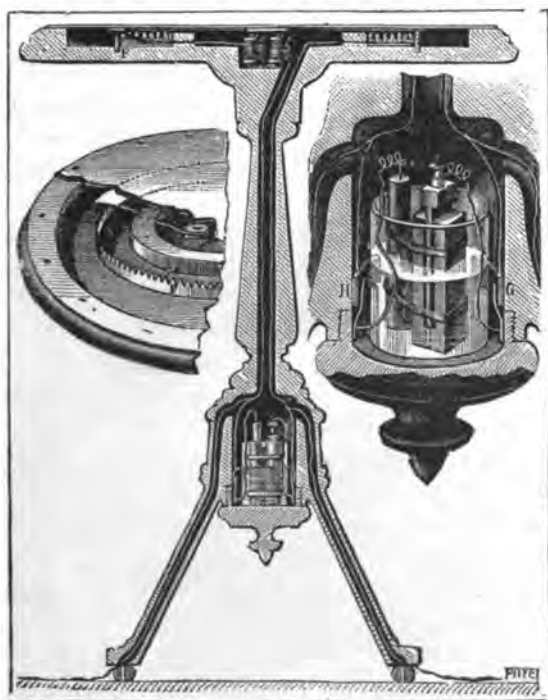
Tricks performed by mediums are in one respect quite different from the feats of prestidigitators; if they come up to the standard, they are, or ought to be, based upon the psychic dispositions of people, setting, as it were, traps for them and allowing them to be caught in their own superstitions. Believers will do it willingly and be grateful for the deception, while determined unbelievers are either altogether hopeless or will be so puzzled as to be likely to become believers. But sleight of hand is always a valuable aid to the medium; and, as tricks pure and simple, mediumistic séances are not different from the performances of prestidigitators; they differ only in this, that they claim to be done with the assistance of spirits. Mediums must be on the lookout and use different methods as the occasion may require. They produce rappings with their hands, or their feet,¹ or with a mechanism hidden in their shoes;

¹ One of the Fox Sisters could produce rappings through a peculiar construction of the bones of her foot, and Cumberland's big toe was blessed with a tendon of its own, enabling him to rap the floor quite vigorously without being detected.

neither do they scorn the use of rapping tables with concealed batteries and electric wires.

A most convenient spirit-table is described by Hopkins in his book on Magic, p. 101, as follows:

"The battery is carried in the lower part of the table, where the three legs join. The top of the table is in two parts, the lower of which is hollow and the upper very thin. In the center of the hollow part is placed an electro-magnet, one of the wires of which connects with one of the poles of the battery, while the other is connected with a flat metallic circle glued to the cover of the table. Beneath



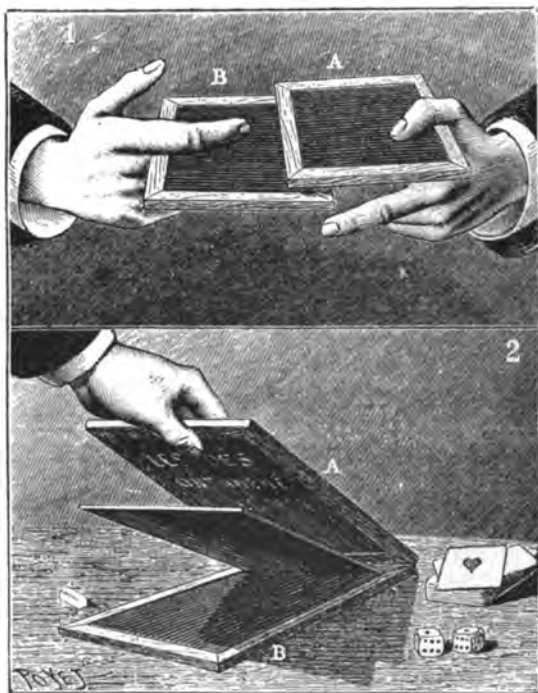
RAPPING AND TALKING TABLE.

this circle and at a slight distance from it there is a toothed circle connected with the whole pole of the battery. When the table is lightly pressed upon, the cover bends and the flat circle touches the toothed one. This closes the circuit, and the electro-magnet attracting the armature produces a sharp blow. When the hand is raised the circuit is broken, producing another sharp blow. By running the hand lightly over the table the cover is caused to blend successively over a certain portion of its circumference. Thus contact is made at a number of places, and the sharp blow is replaced by a quick succession of sounds. This table is very useful for spirit rappings; as the table contains all of the mechanism in itself, it can be moved to any part of the room. The table may be also operated from a distance by employing conductors passing through the legs of the table and under the car-

pet. By substituting a small telephone receiver for the electro-magnet, the rapping spirits may be talking ones."¹

Slate-writing may be done in various ways, and good mediums will always change their methods. One of them is described by Mr. Hopkins as follows :

"Two ordinary wooden-framed slates are presented to the spectators, and examined in succession by them. A small piece of chalk is introduced between the two slates, which are then united by a rubber band and held aloft in the prestidigitator's right hand.



SPRIT-SLATES.

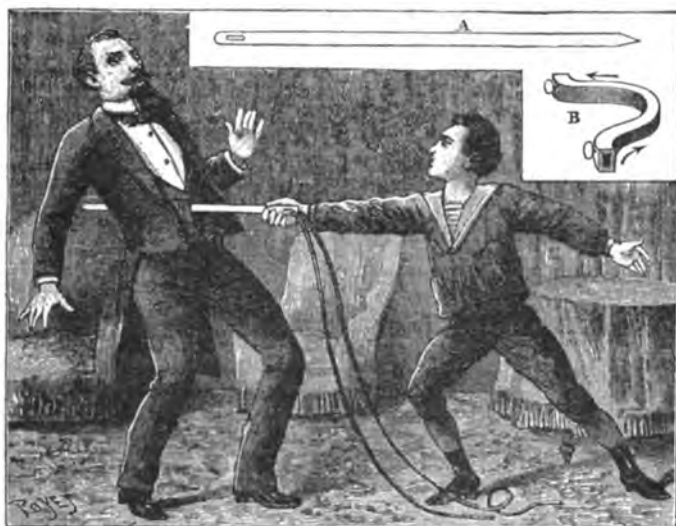
"Then, in the general silence, is heard the scratching of the chalk, which is writing between the two slates the answer to a question asked by one of the spectators—the name of a card thought of or the number of spots obtained by throwing two dice. The rubber band having been removed and the slates separated, one of them is seen to be covered with writing. This prodigy, which at first sight seems to be so mysterious, is very easily performed.

"The writing was done in advance; but upon the written side of the slate, A, there had been placed a thin sheet of black cardboard which hid the characters written with chalk. The two sides of this slate thus appeared absolutely clean.

¹ A similar table is described by Willmann in *Moderne Wunder*, pp. 38-39.

"The slate B is first given out for examination, and after it has been returned to him, the operator says: "Do you want to examine the other one also?" And then, without any haste, he makes a pass analogous to that employed in shuffling cards. The slate A being held by the thumb and forefinger of the left hand and the slate B between the fore and middle finger of the right hand (Fig. 1), the two hands are brought together. But at the moment at which the slates are superposed, the thumb and forefinger of the right hand grasp the slate A, while at the same time the fore and middle finger of the left hand take the slate B. Then the two hands separate anew, and the slate that has already been examined, instead of the second one, is put into the hands of the spectator. This shifting, done with deliberation, is entirely invisible.

"During the second examination the slate A is laid flat upon a table, the written face turned upward and covered with black cardboard. The slate having been



THE SWORD-TRICK.

sufficiently examined, and been returned to the operator, the latter lays it upon the first, and both are then surrounded by the rubber band.

"It is then that the operator holds up the slates with the left hand, of which one sees but the thumb, while upon the posterior face of the second slate the nail of his middle finger makes a sound resembling that produced by chalk when written with. When the operator judges that this little comedy has lasted quite long enough, he lays the two slates horizontally upon his table, taking care this time that the non-prepared slate shall be beneath (Fig. 2). It is upon it that the black cardboard rests; and the other slate, on being raised, shows the characters that it bears, and that are stated to have been written by an invisible spirit that slipped in between the two slates."

Another very ingenious trick consists in apparently stabbing a man to death, the bloody end of the sword appearing at the back,

yet leaving the man uninjured. Since the audience naturally will suspect that the point emerging from the back is not the true end of the sword, the trick has been altered to the effect of replacing the sword with a big needle (A), having tape threaded through its eye. When the assassin's needle has passed through the victim, it can be pulled out at the other side, together with the tape, where it appears reddened with blood. The stabbing, when performed quickly, before the spectator begins to notice that the blade is somewhat reduced in size, is most startling, and makes a deep impression on the audience; but the artifice through which the manipulation is rendered possible is very simple. The sword, or needle, used for the purpose is made of a very thin and flexible plate of steel, sufficiently blunt to prevent it from doing any harm. The victim, as if trying to ward off the dangerous weapon, takes hold of it and causes it to slip into the opening of a concealed sheath (B), which he carries strapped round his body, whereupon the assassin makes his thrust. The interior of the sheath contains a red fluid, which dyes the blade and helps to make the deception complete. The accompanying illustration sufficiently explains the performance.

A magazine article cannot be exhaustive. But the instances adduced are sufficient to prove that even the apparently most complete deception admits of an explanation which in many instances is much simpler than the spectators think. Neither the marvellous feats of prestidigitators nor the surprising revelations of mediums should make us believers in mysticism. The success of modern magic, which accomplishes more than the old magic or sorcery ever did, is a sufficient guarantee of the reliability of science, and even where "now we see through a glass darkly," we must remain confident that when we grow in wisdom and comprehension we shall learn to see "face to face."

MISCELLANEOUS.

"KANT AND SPENCER."

To the Editor of The Open Court:

This is Herbert Spencer's eightieth birthday, and a few of his admirers in this antipodean city are sending him a congratulatory message, by cable, for we feel that he, of all English philosophers, has influenced us most.

I have spent part of the morning in reperusing Dr. Carus's pamphlet *Kant and Spencer*, and I would like to say that it seems to me that Dr. Carus has misapprehended Spencer's criticism of Kant.

Much controversy is raised by the use of the word "intuition". I do not think Spencer meant by that word anything different from that which Dr. Carus means. He uses "forms of intuition" to mean just what Dr. Carus calls "pure intuition." The word "intuition" may not be the best translation of "Anschauung", but it is the English word used by various translators and commentators. See Meiklejohn's Translation p. 24, Max Müller's p. 23, Vol. II. Watson *Kant and his English Critics*, G. Croom Robertson's *Elements of General Philosophy*, and others.

I think that perhaps Alfred Fouillée in his *Histoire de la Philosophie* puts the question plainer. He says, pp. 397 and 398, "D'après cela, qu'est ce que l'espace et le temps? Des conditions de notre sensibilité, sans lesquelles nous ne pourrions rien percevoir, des moyens par lesquelles nous émettons nos sensations en séries régulières, . . . Ce sont, dit Kant, des moules ou cadres dans lesquels les choses viennent prendre la forme qui nous permet de nous les représenter; ce sont, en un mot, les '*formes de la sensibilité*'." Indeed, Meiklejohn's and Max Müller's translations, which almost agree in this respect, word for word, put it thus, so far as Space is concerned: "It (Space) is nothing else than the form of all phenomena of the external sense, that is, the objective condition of the sensibility, under which alone external intuition is possible."

According to Kant, as Croom Robertson has well said, "The human mind brings to the result of pure sense-experience certain subjective factors, viz., (1) pure intuitions (*reine Anschauung*), in order to perception; (2) pure categories of concepts, in order to understanding; (3) pure ideas, in order to reason." These are transcendental and *a priori*. Now the criticism of Mill, Bain, and Spencer, not to mention others, on this position of Kant is, that these are not transcendental nor *a priori*.

According to Spencer, to take "Space and Time", they have been derived by "accumulated and consolidated experiences", not in the individual alone but

through heredity. To quote the words of Spencer in his Essay "On Space-Consciousness", published in *Mind*:

"It must also be pointed out that since on the evolution-hypothesis, that consciousness of Space which we have lies latent in the inherited nervous system and since, along with those first excitations of the nervous system which yield rudimentary perceptions of external objects, there are produced those first excitations of it, which yield the rudimentary consciousness of the Space in which the objects exist — it must necessarily happen that Space will appear to be given along with these rudimentary perceptions in their form. There will necessarily very soon result something like that inseparability which the Kantists allege. Hence we cannot expect completely to decompose into its elements the Space-consciousness *as it exists in ourselves*."

It will be seen from this extract wherein the difference between Kant and Spencer in this question lies. According to Kant the forms of Space and Time have not been derived from experience. According to Spencer they have been so derived. Both recognise that the "forms", so to speak, exist. To use Dr. Carus's happy expression they are "at-sights", but their "whence and how" is the question. How have these moulds, if I may use another expression, come to us? There they are, like the mould of the linotype-machine into which the molten lead of experience disappears, but how were these moulds formed? As a thorough-going Evolutionist Spencer says they are the product of ages of experiences. (See his *Psychology*, 2. ed.)

The only quarrel that one might have with Spencer is that at first sight it might appear that Space and Time, as forms of sensibility, are confounded with the abstract idea of Space and Time; a careful perusal of his *Psychology* will show, however, that he did not so confound them (p. 360, Vol. II, *Psychology*). It is plain, I submit, from his Essay I have quoted, that he rightly appreciated Kant's position.

I do not think Dr. Carus has quite apprehended Spencer's position when he says that Spencer believes that Kant said "that Space and Time have no application in the world of objects (i. e., the non-ego)." Spencer puts his position thus: "To affirm that Time and Space belong to the ego, is simultaneously to affirm that they do not belong to the non-ego." Again: "The Kantian doctrine not only compels us to dissociate from the non-ego these forms as we know them, but practically forbids us to recognise *or suppose any forms for the non-ego*". I do not know if a Kantian would object to this statement, save in the words I have italicised. The only "forms of intuition" Kant mentions as existing in order to perception are Space and Time. The qualities of things, etc., are not "forms".

I may add, one point in which a Kantian may complain of Spencer is that he has not recognised that, considering the time in which he lived and his environment, Kant was an advanced Evolutionist. There are passages in his *Anthropology*, which though put cautiously and suggestively, show that he believed that even man was a product of Evolution. Spencer seems to me, however, to be right in saying that a thorough-going Evolutionist must seek for the origin of the "forms of intuition"—Space and Time—in experience; Kant did not do so. Whether Spencer's view is accepted or not, it is on Evolutionist lines and seems to me the only rational explanation given at present of how these forms arose. John Stuart Mill and Bain suffer from the defects of the old English school—of having developed their psychology before the far-reaching results of Evolution—of heredity—were appreciated. This is seen if one refers to James Mill's *Analysis of the Human Mind*, and is also apparent if the first edition of Bain's works be perused.

WELLINGTON. N. Z.

ROBERT STOUT.

THE OPEN COURT AND "LEAVES OF GRASS"

To the Editor of the *Open Court* :

In the January number of the *Open Court* there appeared (amongst other good things) a portrait of the Hon. C. C. Bonney, a representative individual; an article written by that gentleman on the principles of the *Open Court*, a representative individualistic magazine, an extract of great beauty from the last prose-poem of that (perhaps extreme) incarnation of Individualism—Robert Ingersoll; and finally an editorial note—not by any means appreciative—respecting the writings of Walt Whitman, whom I have long held to be, *par excellence*, the poet of individualism.

In an article in the March number, *The Jesuits and the Mohammedans*, the writer (Dr. Pfungst) states that the battle between Jesuitism and Republicanism "is at present at its height"; by that, of course, is to be understood the struggle between Authority on the one hand and Individual Freedom on the other. If that statement be true, it represents a very serious state of affairs, and all your readers and all sympathisers with the *Open Court* idea should do everything in their power to cultivate Individuality in themselves and all those with whom they may be associated, and to encourage the circulation of literature bearing on the subject of Freedom.

Of literature of the kind, I know of none more powerful than *Leaves of Grass*, and I confess to a feeling of some disappointment on reading the admission of the Editor that "there must be something in Walt Whitman" not as the result of his own study, but merely on the authority of Professor W. K. Clifford.

Then the Editor proceeds to remark upon Whitman's "breaches of etiquette" and "immoral penchants," evidently not recognising that—read in their meaning—the *Children of Adam* series is not immoral, that it is not written for the sake of mere obscenity; for mark these words from *Starting from Paumanok* :

"And sexual organs and acts do you concentrate in me; for I am determined to tell you with courageous clear voice, to prove you illustrious."

He does not say "to prove you obscene and impure," but "illustrious." True, he may not have taken the most judicious means for robbing Sex of its obscene aspect and rendering it "illustrious"; but so long as Sex is a tabooed subject for any but physiological literature, so long will the majority of people continue to regard it as impure.

The Editor continues, "his lack of poetic strength" and "genuine sentiment"; perhaps I am mistaken, but I do wish the Editor would read the *Song of the Open Road* and *This Compost*, and a few of the *Drum Taps*, particularly *Over the Carnage rose prophetic a Voice*; I cannot help thinking that here he will find both "genuine sentiment" and "poetic strength." Then the "gardner will not wind" blades of grass "into garlands for a bride"; perhaps not, yet it is as well not to be too sure about that, either; if the Editor will examine for himself some of the commonest varieties of grasses, he will see what marvelous beauty they possess; when he has done this and read *Leaves of Grass* in a friendly (and not hypercritical) spirit, I hope he will acknowledge that the beautiful grasses of the fields (and there are no ugly ones) are typical of dear old Walt and his book, and might, in default of Orange Blossoms, adorn even a marriage-feast.

Respecting the lines "Stranger, if you, passing, meet me," etc., the Editor says, "surely there is no objection to a conversation between strangers," and the "thought is trivial and not worth incorporating in a poem." No, from the author of the *Primer of Philosophy* there can be no objection whatever; but how many

people are there who live up to *his* philosophy? I take those lines to be an assertion of Equality, which is so closely allied to Freedom and Brotherhood, that the two latter imply the former. Think for a moment how many strangers will voluntarily speak to one another, and then say whether Whitman's lines are justified or not. His own antithesis to the lines in question is this:

"It shall be customary in the houses and streets to see manly affection;
 "The most dauntless and rude shall touch face to face lightly;
 "The dependence of Liberty shall be Lovers;
 "The continuance of Equality shall be Comrades."

The Editor's concluding remark, that Witman's popularity is closely connected with the stir which will always be unfailingly produced by any free discussion of the "questionable passages" is, I think, incorrect; for several years after I had recognised the beauty of *Leaves of Grass*, I did not encounter the book in its complete form—having to content myself with Stead's *Penny Post* edition, the selection edited by Mr. W. M. Rossetti and published by Chatto & Windus, and the little *Canterbury Poet* edition, edited by Mr. Ernest Rhys and published by Walter Scott; and I am fully aware that most of the admirers of *Leaves of Grass* whom I met are quite unacquainted with the *Children of Adam* series, and that some are not even aware of its existence. If in America that is not the case, then all I can say is that the sooner an "expurgated" edition is published there, and the "harmless" poems circulated far and wide amongst the people whom Whitman loved so well, the better.

The Editor complains that "long strings of enumerations are not poetry"; perhaps not; like the Editor, I have never "had the patience to read them through," but it has occurred to me that the author may have had a definite purpose in inserting them, and that perhaps the *Song of the Broad Axe*, which otherwise contains some noble sentiments, would be incomplete without such enumerations. I have no wish to represent Whitman as faultless, and admit that much of his work is "mere talk" and that it is "sometimes shallow."

"Most of the admirers of Walt Whitman belong to the class of eccentrics whose indorsement of a cause is not always a recommendation"; perhaps the present writer is one of these; but, if in this respect he is a sinner, he at least sins in good company; for he has always understood that the lucid *Open Court* contributor, Dr. Moncure D. Conway, was one of Whitman's warmest admirers and friends; in *Liberty in Literature* the late Robert G. Ingersoll extolled and eulogised *Leaves of Grass* and its author; Wm. M. Rossetti (of a poet and artist-family) calls Whitman one of the "great" poets; and *Leaves of Grass* has drawn admiration from such literary men as R. L. Stevenson, Sir Edwin Arnold, Havelock Ellis, Robert Buchanan, J. A. Symonds, John Burroughs, Professor Clifford, and others. These may belong to a "class of eccentrics," but whether or no, I should feel disposed to take their "indorsement of a cause" as "a recommendation."

W. H. TRIMBLE.

DUNEDIN, NEW ZEALAND, April 24th, 1900.

NEW WORKS ON POLITICAL ECONOMY AND POLITICAL SCIENCE.

One of the latest enterprises in the publishing world is the *Citizens' Library of Economics, Politics, and Sociology*, conducted under the general editorship of Richard T. Ely, Professor of Political Economy and Director of the School of

Economics, Political Science, and History, in the University of Wisconsin. It is published by the Macmillans. The design of the library is to "afford such complete information concerning the theory and facts of the three sciences mentioned, that the volumes will have some of the advantages of an encyclopedic work combined with those of separate and distinct treatises." Its new and valuable feature is the giving to the public of information of importance to every citizen, which must now be sought in a great multiplicity of sources, and often sought in vain. We have the explicit statement of the editor to the effect that the "utmost pains will be taken to secure the greatest possible accuracy in all statistic tables and statements of fact and theory, and that no partisan bias will disturb the conclusions." Furthermore, while every attempt will be made to obtain in these volumes clearness of statement and finish of literary style, the interests of science will in no case be sacrificed to popularity, the expressed aim being to bring every volume of the library up to the present standard of science in every respect.

Two of the published volumes of the *Library* are by the editor, Prof. Ely, himself. The first is apparently a reprint of an older work, *Outlines of Economics* (New York and London: the Macmillan Co. Pages, xii, 432. Price, \$1.25), which was begun as a revision of his well-known *Introduction to Political Economy*, but became in the re-elaboration a perfectly new work. The aim of the *Introduction* was to furnish historical and descriptive material chiefly, while the aim of the *Outlines* is to give a systematic sketch of theory. It begins with the traditional "Historical Introduction," and afterwards takes up its subject proper under the following headings: Production, Transfers of Goods, Distribution, Consumption, Public Industry, and the Relation of the State to Private Enterprise, Public Expenditures, and Public Revenues, ending with a sketch of the origin and development of economical theories. The book is a text-book in every sense of the word, and is supplied with summaries of chapters, set questions on the chapters, a list of subjects for essays, discussions, and debates, courses of reading, and a general bibliography. The book is simply and clearly written, and excellently adapted for private study. The second work by Prof. Ely is entitled *Monopolies and Trusts*, and forms part of a very large and comprehensive treatise on which he is engaged, to be called *The Distribution of Wealth*. The book is a timely one. The author believes that he has made an original, though not a definitive, contribution to economic theory, and has presented in a clear manner the main known facts and the main points of view necessary to the study of trusts and trust-legislation. (New York and London: The MacMillan Co. 1900. Pages, xi, 278. Price, \$1.25.)

The Economics of Distribution, by John A. Hobson, is the third published volume of the *Citizens' Library*. It "endeavors to construct an intelligible, self-consistent theory of Distribution by means of an analysis of those processes of bargaining through which economic distribution is actually conducted, the results of industrial co-operation being apportioned to the owners of the factors of production in the several stages of production. . . . In particular, it claims to prove that all processes of bargaining and competition, by which prices are attained and the distribution of wealth achieved, are affected by certain elements of force which assign 'forced gains' and other elements of 'economic rent' to the buyers or the sellers. There is thus established the existence of a large fund, partaking of the nature of those monopoly and differential rents, long ago recognised in the case of land, which furnish no stimulus to voluntary industrial energy, and which can be taken for public service by taxation without injury to industry." Surplus value emerges from all forms of bargaining, but is greater in the case of capitalistic bargainings.

Inequality is ineradicable ; it should be redressed by taxation ; but if that is impossible, public monopolies will have to be substituted for private monopolies. (New York and London : The Macmillan Co. 1900. Pages, vii, 361. Price, \$1.25.)

A second revised and enlarged edition of Dr. Carl C. Plehn's *Introduction to Public Finance* has just appeared. It is intended as an elementary text-book containing a brief and simple outline of the knowledge necessary to prepare students for independent research, brief discussions of the leading principles that are generally accepted, a statement of unsettled principles with the grounds for controversy, and sufficient references to easily accessible works and sources to enable the student to form his opinions for himself. The renewed interest which is now being taken in our system of taxation has given a present import to the financial questions connected with the conduct of the government, and Dr. Plehn's book is one that will help us to inform ourselves concerning the difficulties of the present situation and the most likely paths leading to its reform. (New York and London : The Macmillan Co. 1900. Pages, xii, 384.)

We have at last a text-book on political economy designed especially for farmers. It is by Dr. George T. Fairchild, LL. D., of Berea College, Kentucky, and bears the title, *Rural Wealth and Welfare*. The author believes he need offer no apology for his restatement of the fundamental principles of economics. "Economic literature," he says, "has usually dealt too exclusively with the phenomena of manufactures and commerce to gain the sympathy of rural people." And if the rural population of the country is ever to obtain a sound comprehension of the facts and theories of the science of public wealth and welfare, it can be done only by bringing the subject home to farmers' families in an elementary way, and in connexion with subjects with which they are by experience acquainted. (New York and London : The Macmillan Co. 1900. Pages, xiii, 381. Price, \$1.25.)

Mr. Alfred J. Ferris has presented some very readable considerations in his book, *Pauperizing the Rich : An Inquiry into the Value and Significance of Unearned Wealth to Its Owners and to Society*. They may be regarded by some thinkers as Eutopian ; they may be illogical ; but they at least have the merit of being presented with conviction and naturalness. The central idea of the book is that of a redistribution of incomes on a basis of the people's property in ideas. "We do not wish," the author says, "to repudiate the well-founded claims of the Self-Made Man ; we have no thought of denying to industry its just rewards. But let us render to industry the fruits of its labors : to the whole human race let us render the fruits of its glorious inheritance,—its property of ideas." The author is opposed to the indiscriminate administration of charities, which results in pauperization, but includes in the "charitable list" of the world all persons who have inherited fortunes and shown themselves unequal to the task of making them productive both for themselves and the human race. He terms this class "millionaires-by-charity," and hence the title of his book, *Pauperizing the Rich*. (Philadelphia : T. S. Leach & Co. 1899. Pages, xiii, 432. Price, \$1.25.)

Every one has experienced the difficulty of obtaining trustworthy information concerning the "Welfare-Institutions" and the profit-sharing systems which numerous employers of labor maintain for their employees ; but the difficulty has been

removed by a recent work by Nicholas Paine Gilman, having the title, *A Dividend to Labor*. "Welfare-Institutions" is the name given in economic parlance to the libraries, hospitals, baths, improved dwellings, theaters, gymnasiums, schools, savings banks, etc., etc. conducted in connexion with the great industrial organisations of the world. They all of them are of the nature of an "indirect dividend to labor," as Mr. Gilman phrases it, and form an intermediate stage between the old wages system pure and simple and the more modern profit-sharing system. Mr. Gilman prefaces his work with an exposition and discussion of existing industrial conditions; narrates the life of Robert Owen, the great English manufacturer, who was a pioneer in this direction; describes the welfare-institutions of Germany, the patronal institutions of France, Holland, and Belgium, the British employers' institutions, and lastly, the numerous but less systematic instances of American liberality to workmen. The most famous cases of profit-sharing institutions are carefully discussed, such as the Maison Baille-Lemaire, the Bourne Mills, the Proctor and Gamble Company, the South Metropolitan Gas Company, and the N. O. Nelson Company. Mr. Gilman is fair to both sides in his expositions, and his work may be consulted with confidence in all cases. (Boston and New York: Houghton, Mifflin & Co. 1899. Pages, viii, 400. Price, \$1.50.)

We have not the space to enter into either a criticism or a discussion of Mr. Charles H. Chase's *Elementary Principles of Economics*. It is a very pretentious book, having been presented to the public in the firm conviction that it will prove to be "the beginning of a science of political economy." With all his admiration for the great writers of the past, Mr. Chase is forced to confess that they "have failed to lay a solid foundation for the science in an adequate nomenclature with exact definitions, in the clear and definite statement of the object of economics, or political economy, and in the formulation and statement of the fundamental propositions,"—all of which he believes he has supplied. We shall mention as a specimen of his reflexions the discussion of the standard of value: neither gold, nor silver, nor copper, nor iron, nor any commodity whatever is, in Mr. Chase's opinion, a true standard of value, neither is labor; the true standard is *the average of commodities*—the average price of commodities uniform under all conditions. The practical difficulty, however, is to get hold of this average commodity, and we are consequently obliged to assume a fictitious commodity moving along the lines representing the average change in the labor cost of commodities. The government by its bureau statistics would determine the total amount of new wealth reserved each year for the satisfaction of desires pure and simple. The amount of this wealth would then be divided by the total number of individuals producing it, and the comparison of the resulting quotients for the successive years would give an unvarying unit or standard of value for these several years. (Chicago: Charles H. Kerr & Co. 1900. Pages, xvi, 405.)

Prof. Franklin Henry Giddings, of Columbia University, has attempted in his work, *Democracy and Empire* (New York and London: The Macmillan Co. 1900. Pages, x, 363. Price, \$2.50), the rather difficult task of supplying the psychological, economic and moral foundations of the two popular impulses which are now uppermost in determining the political conduct of modern nations, and for America especially his lucubrations are in the highest sense opportune. His studies in theoretical sociology long ago led him to the belief that the combining "of small states into larger political aggregates must continue until all the semi-civilised, bar-

barian, and savage communities of the world are brought under the protection of the larger civilised nations." And further studies convinced him that the future of civilisation depended largely upon the predominant influence of either the English-speaking people of the world or of the Russian Empire. He saw here a steady trend toward imperialism. On the other hand, he remained convinced "that the democratic tendencies of the nineteenth century are not likely to be checked or thwarted in our own or in future generations." There existed here plainly two antithetical tendencies which demanded reconciliation. There is no mistaking of the real issue. "Democracy and empire, paradoxical as such a relationship seems, are really correlative aspects only of the evolution of mankind." This is the problem of the present crisis, and one which calls for explanation by means of a thorough study of the psychology of society and of the fundamental economical and ethical motives of human effort. The titles of the chapters, which will indicate the general trend and scope of the discussions of this bulky volume, are as follows: The Democratic Empire; The Ethical Motive; The Psychology of Society; The Mind of the Many; The Costs of Progress; Industrial Democracy; The Trusts and the Public; The Railroads and the State; Public Revenue and Civic Virtue; Some Results of the Freedom of Women; The Nature and Conduct of Political Majorities; The Destinies of Democracy; The Relation of Social Democracy to the Higher Education; The Popular Instruction Most Necessary in a Democracy; The Shadow and the Substance of Republican Government; The Consent of the Governed; Imperialism; The Survival of Civil Liberty; The Ideals of Nations; The Gospel of Non-Resistance.

Prof. Frank J. Goodnow has aimed in his *Politics and Administration* to show, "from a consideration of political conditions as they now exist in the United States, that the formal governmental system as set forth in the law is not always the same as the actual system"; and he has coupled with this aim the endeavor "to indicate what changes in the formal system of the United States must be made, in order to make the actual system conform, more closely than it does at present, to the political ideas upon which the formal system is based." All this has involved a study of the operations of our government, of the nature and mechanism of our political parties, and of its distinctive type of leader, the "boss." The concrete remedies which he proposes for the amelioration of the present state of affairs is a greater centralisation of our state administrative system on the model of the national administrative system, and the subjection of the political party to effective public control, with the view of making the parties and its leaders more responsive to the public will. (New York and London: The Macmillan Co. 1900. Pages, xiii, 270. Price, \$1.50.)

Our own nation having entered upon a colonial career in the Philippines, Porto Rico, and in a measure also in Cuba, all thinking Americans will be in favor of establishing a colonial system of civil service which shall be efficient and absolutely free from political pressure. It will be instructive, therefore, to learn what light can be derived from the experience of other nations in this field. Since the excellent work of the late Dorman B. Eaton on English civil service was published, there has been a radical change in the British system, and on the other hand there is no book in any language containing the latest information on the methods of recruiting officials for the colonies of Holland and France. A new book by A. Lawrence Lowell, entitled *Colonial Civil Service* and treating of "the selection and training

of colonial officials in England, Holland, and France," will accordingly be welcomed by students of political affairs. Appended to the volume is an historical account of the British East Indian College at Haileybury, by Prof. H. Morse Stephens. (New York and London: The Macmillan Co. 1900. Pages, xiv, 346. Price, \$1.50.)

T. J. McC.

BOOK REVIEWS AND NOTES.

DER SCHMUCK DES MENSCHEN. By *Emil Selenka*. Berlin: Vita, Deutsches Verlagshaus. 1900. Pages, 72.

This is an extremely attractive book, elegantly got up, with ninety reproductions from photographs taken by Prof. Dr. Hans Meyer, Prof. Dr. M. Buchner, and others on their travels round the world.

The author's problem is the nature of ornament, and the treatment betrays the æsthetician, as does also the style of publication. Seeing that ornament tends to become a part of ourselves, Professor Selenka endeavors to discover the law of ornament as well as its social significance.

Professor Selenka emphasises the fact that ornament is a kind of pictorial language; its purpose is to tell our neighbors of our preferences, be they imaginary or real (p. 13). He compares it to the language of physiognomical expression as treated by Darwin, and regarded among natural scientists as common to all the races of the earth. Further our author insists that he has discovered a law of ornament, and that its development is not a matter of subjective imagination, but of objective facts which, according to him, are determined by the bodily form of man. He distinguishes six kinds of ornament: (1) There are two which are intended to show to advantage man's upright gait, finding expression in hanging ornaments; (2) direction ornaments, which latter are indications of the direction of his movements, as for instance the feathers in the hair of the Indians; further, there are (3) ring ornaments, such as bracelets, collars, etc.; (4) ornaments of aggrandisement, that is to say, things that increase the size of certain limbs,—epaulets and various kinds of headgear; (5) ornaments of color, such as flowers stuck in the hair; and (6) dress to set the color of the body in relief.

These subjects are treated in several chapters, and illustrated by fine figures. The author sums up his opinions with some æsthetic remarks on true and false ornament, and concludes his book on initial and final forms of ornament.

While we appreciate the fact that the book is tastily gotten up and the subject interestingly treated, we cannot help saying that Professor Selenka's discrimination of the various kinds of ornaments dwells on externalities and scarcely touches the main problem he has set out to solve. Our author might have enhanced the treatment of the subject by explaining the historical origin of ornament, which (as anthropology is likely to prove) did not rise from the æsthetics, but *vice versa* is giving rise to conditions which slowly produce an æsthetical instinct. It is a significant fact that all ornament originally served a religious or better talismanic purpose before it became ornament. The first ear-rings, nose-rings, and lip-rings were not worn to satisfy man's æsthetical judgment but served the purpose of protecting these entrances against the influence of evil spirits; so did the amulets which are now worn as ornaments on necklaces. They became ornaments only when their significance as amulets was no longer understood.

An anthropologist might thus be disappointed in the author's treatment of the

subject, but the beautiful pictures alone are worth the price of the book, which we can therefore heartily recommend.

P. C.

CONFUCIUS. The Secret of his Mighty Influence. His views upon the great problem of human life and destiny. By *Thomas Whitney*. Chicago: Seibert, Wermich & Quetsch. Price, 10 cents.

The pamphlet on *Confucius* by Mr. Thomas Whitney is an excellent, short elucidation of the moral principles laid down by the great sage of the Celestial kingdom. Confucianism is the sole religious system in the world, which is established on the ground of positivism, free from all supernatural conceptions and which nevertheless has given comfort to, and has gained the admiration of, millions of souls. As the writer rightly says, "Confucius' doctrine converges at the perfecting of humanity and the making up of the superior man." "To him there was nothing miraculous or supernatural about this. The law of the unfolding of man's spiritual nature was to him as natural as the unfolding of the oak from the acorn, a provision of our nature, innate, the same as is the full fruit in the germ of the seed." The one point, however, on which I cannot agree is the writer's emphasising too much the "Will of Heaven" in expounding the doctrine of Confucius, as if he conceived it as a Christian does. The truth is, to the Chinese mind nothing was so foreign as the idea of a personal God or a willing being above man and nature. The heaven or *tien* was a very vague idea for Confucius, being almost tantamount to the sense of natural law for scientists.

T. SUZUKI.

Mr. F. J. Gould is favorably known as a writer on agnosticism and a populariser of religious history and literature, and we are glad to call attention to two books of his which may suit with the ideas of some of our readers. The first book is entitled *Tales from the Bible* (pages, 103, price, 1s. 6d.), and aims to give a rational view of the Old Testament in a manner suitable to the capacity of children. The author would introduce the child to Bible literature through a simple manual in which the picturesque old legends are related, but accompanies the stories with suggestions and warnings which will prevent children "from believing that all the narratives of the Bible are historical and its teachings pure." In the second book (pages, 176, price, 2s.), he has done the same work for the New Testament, first seeking to make his young readers understand the Gospel, and then if possible "to open to them the natural charm of the early Christian legends." In doing this he "has not scrupled to take away or to add or to modify details." The legend is separated as far as possible from the fact, on the basis of an examination of recent criticism. Some will object to the books that they represent a purely personal, and in many respects a biased, view of the Bible; but this must be true in a large measure of every attempt to make Bible history and literature comprehensible. Mr. Gould has at any rate well brought out the connexion of the whole, and a coherent and systematic impression cannot fail to be produced in the young mind by his stories. With modification of details and in some cases of interpretation, the books might be found of assistance by persons of widely varying opinion. (London: Watts & Co., 17 Johnson's Court, Fleet St.)

The same company has just issued for the Rationalist Press Association a collection of able essays by Mr. J. M. Robertson, entitled *Studies in Religious Fallacy*. Mr. Robertson takes as his text such subjects as Drummond's *Natural Law in the Spiritual World*, Lang's Views on the Origin of Religion and on Miracles,

Mr. Gladstone on the Atonement and on Butler, Freeman on Christianity, Tolstoy on the Ethics of Jesus, etc. (Pages, 227.)

The Rationalist Press Association have also fathered the views of a little book by Joseph McCabe, called *The Religion of the Twentieth Century*, wherein are expounded the tenets of the agnostic faith by a convert from Roman Catholicism. (London: Watts & Co., 17 Johnson's Court, Fleet St. 1898. Pages, 102. Price, 1s.) *The Evolution of Man: His Religious Systems and Social Customs* is the title of a work by Dr. W. W. Hardwicke, issued by the same publishers, and being a compilation of modern views of the development of religion from the point of view of a free thinker. (Pages, xiv, 300. Price, 5s.)

A collection of essays by the leaders of the ethical societies, entitled *Ethics and Religion*, is published to repel the imputation that these societies do not rest upon any philosophical basis. The public, it is said, "is liable to mistake the absence of philosophical theory for a lack of philosophical insight" among the members of the union; but it is contended that this absence may be a proof "of their philosophic discipline and habit, and of their familiarity with the growth of metaphysical systems"; in other words, "that they possibly expect to end, but certainly entertain no hope of beginning, with a system of universal truth." The essays are by J. R. Seeley, Felix Adler, W. M. Salter, Henry Sidgwick, G. Von Gizycki, Bernard Bosanquet, Leslie Stephen, Stanton Coit, and J. H. Muirhead. The majority of them were written ten years ago; they then gave character and direction to the ethical movement, and, being the thoughts of the founders, it is considered important that they should be preserved. (London: Swan Sonnenschein & Co. New York: The Macmillan Co. 1900. Pages, ix, 324. Price, \$1.50.)

We are in receipt of a brochure of 139 pages bearing the title *Hinduism Ancient and Modern as Taught in Original Sources and Illustrated in Practical Life*, by Rai Bahadur Lala Baij Nath, B. A., Fellow of the University of Allahabad. "The object of the publication is to present the teachings of Hinduism, as gathered from its most authentic and recognised sources, on all important phases of the social, religious, and philosophic life of the Hindus, in a simple manner, free from unnecessary details, technicality, and all controversial matter." It is an enlarged and amended edition of some papers contributed by the author to the National Oriental Congresses of Paris in 1797 and of Rome in 1899.

The Annual Literary Index for 1899, by the *Publishers' Weekly* of New York, gives the titles and names of the authors of all the articles which have appeared in the leading American and English periodicals for 1899, an index to the general literature of the year, a list of the American and English bibliographies published in 1899, an index to the dates of the principal events, a necrology of the writers who have died, etc. The index of dates practically serves as an index to the files of any newspaper for 1899. For libraries, newspaper offices, and students who have to consult the literature of the year, this *Index* is indispensable.

One of the latest issues of the *Temple Primers*, noticed at length in the *June Open Court*, is *The Civilization of India* by Romesh C. Dutt. The little book portrays in brief outlines the development of the literature, art, philosophy, science, and industries of India, for some four thousand years, and contains illustrations of several of the most prominent monuments and temples, together with three maps. (London: J. M. Dent. New York: The Macmillan Co. Pages, vi, 146.)

The latest issue of the *Zeitfragen des christlichen Volkslebens* is by M. Reichmann, and treats of the attractive subject of Catholicism and Protestantism in France. The author concludes with the reflexion that whereas the Catholic nations, as political and commercial powers, have succumbed to the Protestant nations, nevertheless there has been built up within Germany an immensely powerful and threatening *imperium* in the shape of the consolidated Roman Catholic interests.

M. Georges Blondel has written an historical and critical study of the Passion Play of Oberammergau in his *Drame de la Passion*, giving also practical hints to travellers purposing to visit Oberammergau this year, descriptions of excursions into the romantic vicinity, the plans of the theater, and two maps. The little brochure costs 1 fr. 25, and is published by Victor LeCoffre, Paris, Rue Bonaparte 90.

Carl Reissner, of Dresden and Leipsic, is the publisher of a series of German biographies entitled *Men of the Day*. Krupp, Nansen, Nietzsche, Liszt, and Windthorst were among the first numbers. The latest is a vivid portrayal of the life and activity of the great German scientist, Ernst Haeckel, by Wilhelm Bölsche. The little book is adorned with a good portrait of Haeckel.

We are in receipt of the first few numbers of a new weekly called *The Indian Review*, published by G. A. Natesan & Co., Madras, India. The scope of the review is a broad one, and not only are the political and literary affairs of India thoroughly discussed, but considerable attention is given to events of importance outside of India. The subscription price is 5 Rs. annually.

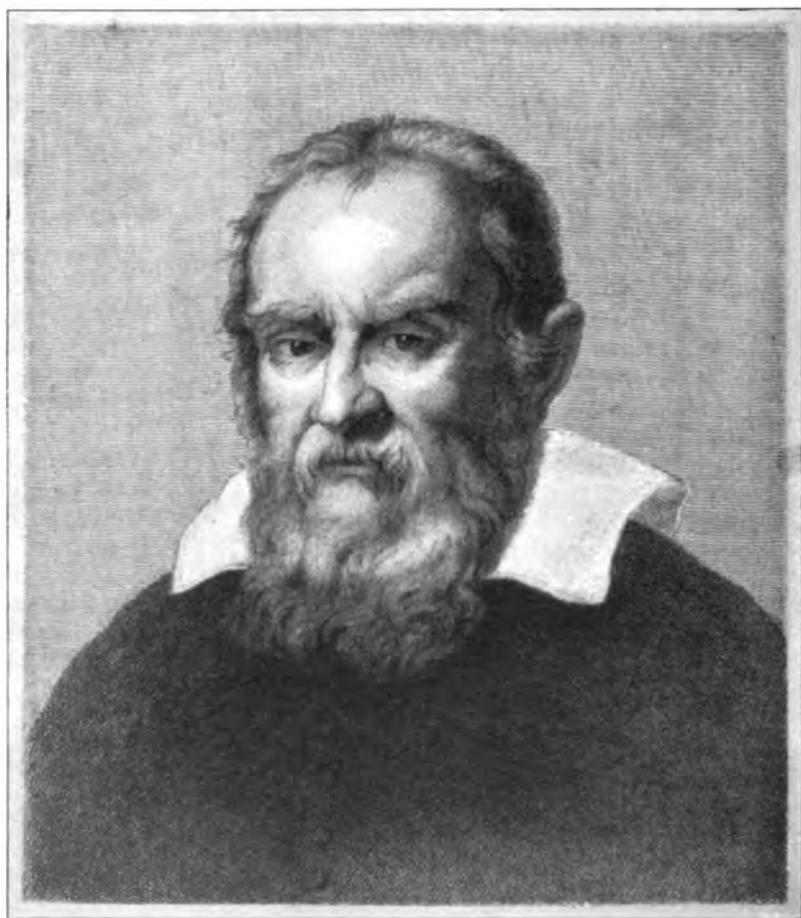
The first number of the first volume of the new series of *Le Muséon*, a philological, historical and religious review established in 1881 by the distinguished Orientalist, M. Ch. de Harlez, has been issued, and contains an article on the "Mysteries of the Greek Letters" by A. Hebbelynck, and one on "The Prepositional Verb" by Raoul de la Grasserie, besides reviews.

Emanuel F. Goerwitz's translation of Kant's *Dreams of a Spirit-Seer* has been edited by Mr. Frank Sewall. The little work is a humorous critique by Kant of the philosophers of his day, using Swedenborg as a mark for his blows. Mr. Sewall seeks to show that in his later inquiries Kant was indebted to Swedenborg for some of his most famous philosophical theories.

The editor of *The Open Court*, Dr. Paul Carus, will sail for Europe on July 18, with the steamer *Deutschland*, to participate, as an official delegate from the United States, in the Religious and Philosophical Congresses of the Paris Exposition.

L'Année de l'église for 1899 has appeared. It is the year-book of the Catholic church, and contains the statistics of its condition and operations. The editor is Ch. Égremont. (Paris: Librairie Victor LeCoffre. 1899. Pages, 664.)

Students of Jewish history and literature will find much good advice for pursuing their work and selecting their materials in the syllabus issued by The Chautauqua System of Jewish Education (Philadelphia, P. O. Box 825).



GALILEO GALILEI.

(1564-1642.)

From an engraving by Jean Baptiste Vandersypen after a Painting by Fr. Broschi.

Frontispiece to the August *Open Court*.

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THE STRUGGLE REGARDING THE POSITION OF THE EARTH.¹

BY CARUS STERNE.

"IT moves, just the same," Galileo is said to have exclaimed, stamping his foot, after having, before the court of the Holy Inquisition on June 22, 1633, abjured faith in the heretical teaching of the movement of the earth around the sun. But the delightful anecdote belongs, unfortunately, to the great multitude of those which it has latterly become the custom to designate as *esprits d'escalier* (*Treppenwitze*), the after-thoughts of man or of history. Nothing could have been further from the mind of the intimidated scientist than such a defiant recantation, for it would have been neither more nor less than a challenge of the powerful by the weak. If Galileo had felt the slightest inclination to become a martyr to his convictions, like Giordano Bruno, and had he been the stuff of which martyrs are made, he would not have taken that oath. But the anecdote is not without value, for it allows him to voice what he surely at that moment thought and felt in the depths of his soul, and what other adherents of Copernicus, firm in their own faith, may have wished to hear him acknowledge. So it has come about that this unspoken thought, although universally acknowledged to be of later origin, has become a household word. Even now it ceases not to serve as an inspiration when the Church, in spite of such unfortunate experiences, arrogates to herself a decision in questions which do not come under her jurisdiction.

Kant has shown in his work *Religion Within the Bounds of Pure Reason*, that Christianity has been harmed by nothing more than by

¹ Translated from the German by Dr. David Eugene Smith, State Normal School, Brockport, N. Y. The illustrations of the present article are from the collection of Dr. Smith.

the despotism of its official representatives. He points out how the eastern and western Roman Empire, distracted and powerless from raising Christian dogmas to the position of civil laws, became the welcome prey of barbaric nations. Even so do plants and animals, when on the way to dissolution through disease and internal disorder, attract destructive fungi and insects, which hasten their death. In the same way, nothing has more shaken the faith in the correct interpretation of the Bible by the Church, and in the infallibility of the apostolic see, than just this attempt, so wantonly and unnecessarily made, to suppress scientific knowledge that does not even touch the proper teachings of Christianity.

Hence the Roman Catholic Church must even now be grateful to Galileo, that through his compliance and weakness he saved her from applying the torch to his funeral pile. Otherwise she would have been much more seriously afflicted than by the burning of Giordano Bruno (1600). Bruno it is who was condemned not only as an adherent of the Copernican System, which in his *Ash-Wednesday Communion* he defended against the Oxford opponents, and further advocated in a book which appeared the same year, *Concerning the Eternal, the Universe, and the Worlds*, but especially as a free-thinker, who had pursued the regulations of the Church with bitter mockery, and had spoken altogether too frankly of her dogmas. Against the author of *Candle-makers*, who scoffed at the mummery of relics and the hypocrisy of ecclesiastics, who compared Christ to a Centaur, who had attacked with all his strength the foundation-pillar of the Church, the holy Aristotle, she might have been in a necessarily defensive attitude that does not excuse her proceeding, but shows it in a milder light. In Galileo's case, on the contrary, it concerned a scholar, who without making an attack on the teaching of the Church, without deviating in any way from the objects of his physical and astronomical studies, merely wished to lay before the world the results of his investigations. Furthermore the Church, up to that time, had not appeared to consider the teaching of the movement of the earth, in itself, a dangerous heresy, if it was not brought forward, as in Bruno's case, in connexion with scornful attacks on the hierarchy.

The time for this great progress in thought seemed therefore to have arrived; the clamor which had been raised against the courageous ideas of Copernicus and Kepler, might be interpreted as the last impotent cry of rage of the disciples of Aristotle; Galileo therefore decided to follow these august examples, after he had become convinced, through his astronomical observations, of the cor-

rectness of the Copernican view of the world. He was already a man entering the forties when he gave himself up more thoroughly to astronomical research, and had won considerable reputation as a physicist through his studies of the movements of the pendulum, the laws of falling bodies and other physical phenomena. At the same time he recognised the erroneousness of many of the statements and so-called laws of Aristotle, which up to that time had been considered as absolutely correct.

The new star which appeared in 1604 in the sign of Serpentarius, had also drawn his attention to the fact that the proposition of Aristotle as to the immutability of the earth above the moon had no real foundation. Shortly after (1608) he learned that a Dutch optician, Johann Lippershey in Middelburg,¹ had by the combination of several lenses, produced an instrument with which the heavenly bodies could be seen more distinctly. This led him to make for himself a telescope (1609) in order to extend the field of vision, and to gain a deeper insight into the construction of the universe, as well as into the peculiarities of the heavenly bodies, than had thus far been possible to Copernicus, Tycho Brahe, and his friend Kepler. The hoped-for result was attained; he immediately discovered the satellites of Jupiter, described in his *Sidereus Nuncius* (1610), the moon-like phases of Venus and Mercury predicted by Copernicus, and finally the sun-spots (October, 1610) which proved the revolution of the sun on its axis, already taught by Copernicus.

These discoveries were so many confirmations of the Copernican system; the planets were clearly shown to be dark bodies, which, like the moon and earth, received their light from the sun; and the satellites of Jupiter were brought to view as a miniature model of the solar system.

It was not long, however, before the discoveries effected through Galileo's telescope were branded as mere hallucinations and delusions. Then did the master pour forth his troubles to Kepler, his friend to the north of the Alps: "You are the first and almost the only one, who without having seen for himself, gives full credence to my statements. What will you say of the first teachers of Padua, who when I made them the offer, would neither look at the planets or the moon through the telescope, nor even examine the latter? Men of this class regard philosophy as a book like the *Aeneid* or the *Odyssey*, and believe that truth is not to be sought either in the

¹ As to Lippershey's priority, which can no longer be doubted, compare Servus, *Geschichte des Fernrohrs*, Berlin, 1886.

world or in nature, but only in a comparison of texts. How you would have laughed, when at Pisa the first teacher in the university there endeavored, in the presence of the grand duke, to draw the new heavenly bodies from the sky with logical demonstrations, as though with magical conjurations !"

In the beginning of 1611 a certain monk issued a work in which he declared the existence of Jupiter's moons to be "irreconcilable with the Bible." This was always the last and most dangerous argument that conservatism fell back on, and Galileo refrained long from entering the lists against this prejudice. Kepler indeed, in answer to the disheartened letter in which Galileo expressed his fears, admonished him to stand by Copernicus, letting these other considerations go. "Have confidence, Galileo," he writes, "and go forward ! If I see correctly, only a few of the more eminent mathematicians of Europe will forsake us, so great is the power of truth." Evidently, however, Galileo showed the truer instinct in the matter, distinguishing between his position and Kepler's ; but on the other hand, it was precisely by the caution with which he proceeded, and by his attempts to harmonise the new theories with the Bible, that he brought himself into the greatest danger.

He went to Rome in 1611, in order to convince the most influential dignitaries, through their own eyes, of the reality of the new celestial discoveries. It must be said, too, that all were not so obstinate in their opposition as Cremonini da Cento in Padua, who absolutely refused to look into the devil's glass, not wishing to see the three moons that Jupiter was said to have in excess of the earth's number. Galileo's success, with which he hoped to silence the clericals, seemed to be complete ; a committee of scholars appointed through the agency of Cardinal Robert Bellarmine had acknowledged the reality of the observations ; Pope Paul V. had given him a long audience, and had assured him of his unalterable favor, and even the members of the Society of Jesus had appeared most friendly. The moment for laying aside his caution and publicly acknowledging Copernicus, as he had up to this time done only in letters to trusted friends, seemed to him to have arrived. The step was taken in a work appearing in 1613 under the title *History and Explanation of Sun-Spots*, in which he unreservedly demonstrated the failure of the Ptolemaic system, as taught up to that time, and showed how, by means of the Copernican system, not only the discouraging calculations of astronomers were simplified, but the results of all direct observations tended to prove the

system true. It seemed at first that in Rome the good opinion that his visit and his personality had created would be maintained.

He was assured, even after the appearance of this work, of continued favor, and the hope was even expressed that his work in support of the Copernican system, whose dedication Pope Paul III. had received "with gratification," would assist in obtaining the victory. Cardinal Maffeo Barberini, afterward Pope Urban VIII. and patron of his enemies, also assured him at this time of his admiration.

The number of these enemies and of those who were jealous of him had meanwhile increased somewhat, especially since his work on sun-spots. Without knowing of Galileo's observations, a Jesuit father, Christoph Scheiner, of the University of Ingolstadt, had on the 21st of March, 1611, nearly half a year later than Galileo, discovered spots on the sun, but had not dared to make this observation public, because it contradicted the Aristotelian doctrine of the sun as the emblem of the greatest purity. "I have read Aristotle's writings repeatedly, from one end to the other," his father superior, Theodor Busäus, had said to him when he confided to him his discovery, "and I can assure you that I have found nothing of that of which you speak. Go, my son, calm yourself, and believe me that that which you take for spots on the sun are only defects in your glass or in your eyes."

But Scheiner, nevertheless, did not calm himself, and reported his repeated observations in three letters of the 12th of November, the 13th and 26th of December, 1611, to the learned senator Markus Welser in Augsburg who had them printed under the title *Apelles post tabulam* in 1612, without the knowledge of the author. Galileo thereupon appealed to the fact that he had already in 1610 pointed out this discovery to several friends, and a dispute over priority arose, which, carried on with the usual bitterness of such affairs, helped to stir up the hatred of the Jesuit Scheiner against Galileo. Moreover, a Friesland astronomer, Johann Fabricius, had discovered the sun-spots shortly after Galileo, though this was not known in Italy at the time, and had described them, together with the inferred revolution of the sun on its axis, in a work which appeared in 1611, so that the dispute over priority between Galileo and Scheiner, which left behind so much bitterness, was pointless, since another had preceded them both in publication.

Besides this, professional envy, which is well known to be as strong in learned circles as in other grades of society, seems to have contributed to increase the feeling against Galileo. He had

on account of his important discoveries in physics, made a brilliant record, as the saying is. He had attained a most desirable position in Florence, at the court of the Grand Duke of Tuscany, who was much interested in his work and had, in 1610, given him a place in his service. This seems to have caused one of his envious colleagues, Professor Boscaglia, who taught physics in the Tuscan University at Pisa, to work against him in influential circles. It shows the man, when we learn how he insinuated his opinions in the mind of the Dowager Grand Duchess. Galileo, he said, was an excellent observer, the correctness of whose telescopic work was probably not to be doubted, but who evidently could not interpret them correctly, since the Bible explicitly represents the earth as immovable, and tells in various places of divine miracles by which the sun had been held fast in one point in the sky, or even turned backward.

In this connexion, naturally the first thing considered was the celebrated episode in the book of Joshua, in which the victory of the Jews over the Amorites is described, and the commander-in-chief of the assembled army speaks: "Sun, stand thou still upon Gibeon; and thou, Moon, in the valley of Ajalon." The account continues: "And the sun stood still, and the moon stayed until the people had avenged themselves upon their enemies. Is not this written in the book of Jasher?" A whole day, that is about twelve hours, the sun is said to have remained at the zenith, and when more recent theologians assume that the Bible when it spoke of standing still was only using the language of the people, according to which, even to-day, the sun passes over its course, this is but an idle subterfuge. Such also is the attempt to find in these verses merely a poetic expression of admiration for the deeds achieved in the battle with the Amorites, these deeds being so mighty that one could not believe them to have been accomplished in a single day. The Bible rather gives its account from the point of view of a degree of culture which considered entirely practicable the stopping of the sun and moon by means of prayers and conjurations, because it held these bodies to be mere illuminating spheres of moderate size. That the Biblical writers believed these miracles quite literally and regarded it in nowise as poetic fiction is plainly seen from Sirach 46, 5, where it is said: "The sun stood still at the will of Joshua, and one day became as two." The same is also apparent from the experience of King Hezekiah, as related in several places in the Bible and probably by several authors. His prophet Isaiah announced to him that in order to give him a sign,

the sun would go back over part of the course that it had already made, and the shadows on the sun-dial that his father Ahaz had erected actually moved backward ten degrees.¹ It will be conceded that if these stories had not been in the Bible and had not received such a construction, Galileo's trial would not have taken place, and that it all came down to a question of an ignorant superstition.

But the clergy regarded man's understanding even at that time as weak enough to believe in such miracles. As a proof of this may be cited the fact that only a few years after the appearance of Copernicus's work the Joshua miracle was actually attempted and was said to have been observed in the battle of Mülberg on the 24th of April, 1547. The Spanish author Luigi of Avila claims in his work on the German War to have been an eye-witness of this battle: "The impending defeat was foretold to Frederick the Generous by an evident miracle. The sun appeared like blood, and as if it had delayed its course and added to the length of the day. When we looked attentively we saw that it was higher than it should have been at that hour. The opinion of all in regard to this matter was so unanimous that I certainly dare not repress it."² Florimond von Remond in his *History of Heresy* has cited still other eye-witnesses of this new edition of the Joshua miracle, a wonder immediately celebrated in verse. The Duke of Alba, however, said that he had observed nothing of it, and excused his oversight of such an important circumstance by the fact that in consequence of the resistance of the heretics he had been too busy with events on the earth to concern himself with what was going on in the sky. It would evidently have needed only a slight concession on the part of the commander to make of Charles V. a second Joshua.

But if we return to the martyr to this miracle, it cannot be denied that, in his zeal for the truth and his feeling of the justice of his cause, he was guilty of the imprudence of himself furnishing his watchful antagonists with the weapons by which they were able to reach him. His friend and adherent, the Benedictine father Castelli of Pisa, had in 1613 warned him of the cabals and intrigues formed in consequence of his work on the sun-spots, and that there was a plan to charge him with a crime against religion. Galileo allowed himself to be beguiled by this into entering into the theological side of the question, and he sent his friend a detailed statement of his conception of the interpretation of the Bible.

¹ 2 Kings xx. 8-11; Is. xxxviii. 7-8.

² See the article, Charles V., in Bayle.

"The Bible in itself," he writes as a good Catholic, "can neither lie nor err, but the same is not true of its interpreters who are so much the more exposed to misunderstanding as the Holy Scriptures use figurative expressions in many places, which may be understood differently." "Since Holy Scripture," he continues "in many places not merely allows, but actually demands another interpretation than is apparently shown by the tenor of its words, it seems to me that in mathematical discussions the last place should be conceded to it. For both Book and Nature proceed from



the divine word, the former as inspired by the Holy Ghost, the latter as the carrying out of divine command. In Holy Scripture it was necessary, in order that it be adapted to the understanding of the majority, to say much that is apparently different from its exact meaning; Nature, on the contrary, is inexorable and immutable, unconcerned whether her hidden principles and means of operation are comprehensible or not by human understanding, for which she never deviates from her previously sketched laws. Hence it seems to me that no work of Nature, either which experience brings before our eyes, or which necessarily follows as a

consequence of demonstration, should have doubt cast upon it on account of passages of Scripture. For the Bible contains thousands of words of several meanings, and not every sentence in Holy Scripture is subject to so strict a law as every work in Nature."



AFTER A CONTEMPORARY PRINT.

Although Professor Reusch of Bonn thinks¹ that Galileo's attempts to harmonise the differences arising between science and

¹ F. H. Reusch, *Der Prozess Galileis und die Jesuiten*, Bonn, 1879.

the Bible were founded upon the most correct hermeneutic principles, it nevertheless remains an undeniable blunder that in this letter he left the domain of facts and intimated the possibility that even the high clergy might be mistaken in the interpretation of the Bible. Castelli, who seems to have considered his friend's statement as harmless as irrefutable, hastened to allow the letter to become public, and thereby placed a piece of evidence in the hands of Galileo's opponents of which they made use. Soon after, a Dominican monk, Caccini of Florence, in a sermon on a text which seemed made for the occasion, "Ye men of Galilee, why stand ye gazing up into heaven?" thundered against the man who dared attack the infallibility of the orthodox interpretation of the Bible as the result of mere star-gazing. He was joined by Father Lorini, his friend and a member of the same order, who added a denunciation of the erroneous teachings of the Florentine physicist, addressing it to the Holy Office in Rome. It was well received and immediately preliminary and secret proceedings were instituted against the offender.

With that began the ever memorable trial of Galileo. The history of this proceeding having within the last twenty years undergone a revision by some of our most authoritative investigators, it is proper to consider it here somewhat thoroughly. In fact, the Holy See was itself induced, some thirty years ago (1867), to publish the records of this trial, in order to prove that the Church had proceeded at that time with the greatest forbearance against a fickle scholar, one unmindful of his promises, one whose opinions had opposed the general views of the time, and who caused much scandal. An imposing list of books upon Galileo and his trial have appeared since that time, not to speak of innumerable treatises and smaller essays. Mention may be made of only a few of the leading writers: De l'Epinois (1867 and 1878), Henri Martin (1868), Gherardi (1870), Wohlwill (1870 and 1878), Riccardi (1873), Wolynsky (1874 and 1878), Pieralisi (1875), Berti (1876 and 1878), Karl von Gebler (1877), Reusch (1879), Campori (1881), Grisar (1882), Favaro (1882 and 1884).¹ These publications go far to show how undiminished is the interest which free investigation even to-day is bringing to this trial.

Galileo, who at the outset knew nothing of these proceedings secretly begun against him, stirred up his adversaries still more by continuing to rely on his just claims in an open letter to the Dow-

¹A complete list of these publications to within two years of date may be obtained by consulting the *Jahrbuch über die Fortschritte der Mathematik*.—Trans.

ager Grand Duchess. "First take care," he writes, "to refute the arguments of Copernicus and his followers, and leave the concern of condemning them as heretical or erroneous to those to whom it belongs; but do not hope from the discreet as well as intelligent fathers of the Church, and from their absolute wisdom which cannot err, that rash decision to which you, urged on by personal interests and passions, would allow yourself to be hurried. For it is indeed beyond doubt that in regard to these or other similar assertions which are not directly *de fide*, His Holiness the Pope has always the absolute power to pronounce them good or to condemn them, but it is not in the power of any human being to cause them to be true or false or other than they are *de facto* from their nature.' These words, as bold as they were true, were certainly not calculated to make his opponents more indulgent.

On receiving news of the proceedings against him in Rome, Galileo hastened thither without waiting for invitation, hoping to conduct his own case, and relying on the support of his former patrons. He was again received politely enough, as he was able to report to his Florentine friends in the beginning of February, 1616, and he once more succeeded in calming the storm. Indeed, the proceedings dwindled to a mere admonition to cease the Copernican teaching, and to a condemnation of the latter. But on the 24th of February, 1616, the commission convened by the Holy Office unanimously arrived at the following decision: that the declaration that the sun forms the center of the universe and is without local movement in space, is "foolish and absurd from a philosophical standpoint," and is "heretical from a religious standpoint, inasmuch as it contradicts the tenets of Holy Scripture in many places, both according to the plain meaning of the words and according to the universal interpretation of the holy fathers and learned theologians."

On the following day, February 25, the committee appointed Cardinal Robert Bellarmine to warn Galileo to renounce the opinion mentioned. If he refused to obey, the positive command should be communicated to him that he "refrain entirely from teaching, supporting, and discussing such a doctrine and opinion. If he did not keep silence in regard to it, he should then be imprisoned."

Whether the last prohibition was really communicated to Galileo, has been the subject of much discussion in recent times. There undoubtedly exists, and is still to be found among the records, a protocol of February 26, 1616, in which this is asserted. In this the threat is added that otherwise the Holy Office would

take action against him, a record which in the resumption of the proceedings sixteen years later was to serve as a foundation for the accusation that Galileo had broken promises made in solemn form. But in recent times, since the publication of the records of the trial, the value of this piece of evidence has on good grounds been more or less firmly called into question.

In the year 1870 Emil Wohlwill,¹ after the most careful examination of the records, put forward the assertion that this protocol was forged. Almost at the same time, and independently of the German investigator, the Italian Silvestro Gherardi² stated the same opinion, basing his argument on the publication of the protocol of the session of the committee of the Office on March 3, 1616, in which Cardinal Bellarmine in the outset reports that "the mathematician Galileo Galilei has been admonished to renounce the opinion, firmly held by him until that time, that the sun is the center of the heavenly bodies, and motionless, while the earth on the contrary moves, and that he had thereupon become quiet." Then follows immediately the note that the work of Nicholas Copernicus, as well as a commentary on the Book of Job by Diego a Stunica, supporting the heliocentric theory, and a work by the Carmelite Paul Anton Foscarini on "the new Pythagorean world-system," should be placed in the Index, which was done through a decree of the 5th of March. As there is not the slightest intimation in this official report of any refusal on the part of Galileo, and of a consequent more severe admonition, Wohlwill and Gherardi, to whom were added later Karl von Gebler,³ Günther, Hase, Martin, Scartazzini, and others, consider this other protocol to be a forgery, made at a later date with the object of giving the resumption of the trial a legal foundation. It is true that not only Catholic but also certain Evangelical writers, such as Reusch, besides de l'Epinois, Berti, and Wolynsky, have championed the genuineness of the composition. Reusch, however, claims it genuine only in the sense that the questionable protocol was merely a draft which was not intended for use, and which afterwards found a place among the documents of the Inquisition, to be used then *bona* or *mala fide* against Galileo. The latter alternative, however, would really be no better than a direct forgery, the suspicion of which can hardly be dismissed.

After his return from Rome, Galileo lived for a time a retired

¹*Der Inquisitionsprozess des Galileo Galilei*, Berlin, 1870.

²*Il processo Galilei*, Firenze, 1870.

³*Galileo Galilei und die römische Kurie*, Stuttgart, 1876.

life at the Villa Bellasguardo in Florence, not caring to accept the invitation of Kepler to come to Germany where he might be free to acknowledge his opinions. He was accustomed at this time to treat the teaching of the movement of the earth as an unlawful hypothesis at best, but his "obedience" was really almost worse than open resistance. He had at that time written a work on the phenomenon of the tide and sent it (1618) to his patron, the Archduke Leopold of Austria, with a note which contained the following words: "Because I am now aware that it is fitting to believe and to obey the decisions of the superiors, they being directed by a higher intelligence to which my mind is too base to soar alone, I regard this work, which I send to you, so far as it rests on the assumption of the two-fold movement of the earth, even though it contains one of the arguments which I brought forward in corroboration of that view, merely as a poem or rather as a dream; as such your Highness may receive it. But even poets at times place a value on one or another of their fancies, so likewise do I place some value on this my dream."

Naturally such utterances always reached the ears of the pious fathers, and roused them to renewed fury. At this time Kepler in Prague, although in the service of his apostolic Majesty, also acknowledged himself as favoring the Copernican theory, and in the same year (1618) in which Galileo's work began to stir up discussions, he made the immortal discovery of the third law governing the movements of the planets. In the same year also occurred the first rising of the Protestants in Prague, which ushered in the Thirty-Years' War. Therefore the Church, at that time under the direction of the Jesuits, believed that it ought to make a ruthless attempt to win back the territory lost through the Reformation, even though the peace and prosperity of the whole of Central Europe should be destroyed thereby. There was felt only too well the close relationship between the new astronomical discoveries and the opposition of the Protestant spirit to the authority of the Church. It is probable that now for the first time was recognised distinctly all that would result from the belief that the earth could no longer, according to the views of Aristotle, be looked upon as the center of the universe, around which everything should turn and all other stars revolve, even as the thoughts and destiny of mankind should circle about the immovable rock of the Church at Rome. When the discovery of America had demonstrated the untenableness of the old opposition to mathematics and the teaching of the antipodes, there was some measure of uncertainty felt as to

what was to be done about the new teachings and discoveries ; but now all at once was seen the abyss which was opening in place of the old, sure geocentric foundation for school and Church.

What immeasurable consequences must follow, if the firm ground on which the whole structure rested, were, so to speak, taken away from under it, if the earth were suddenly degraded to the rank of a mere planet, revolving like so many other planets around the sun, and if finally all these planets, which according to Galileo, were only dark worlds, should demand each one its paradise, its work of salvation, and its vicar of God ! Indeed why, then, might still other stars not come with similar claims ?

The unmistakable need of self-defence was suddenly felt, and attempts were first made to lure Galileo, who now seemed to have got off too easily, from his cautious reserve. To this end the Jesuit father Grassi, under the title *The Astronomical and Philosophical Balances*, launched a polemical work against Galileo, personally attacking him while generally combating the Copernican teaching. Fortunately Galileo seems to have guessed the deeper design of this noose, twisted, with true Jesuitical cleverness, to strangle him or to cause him to break silence. Accordingly he contented himself, in his answer entitled *The Assayer* (*Il Saggiatore*, 1623), which is classed among the pearls of Italian literature, with showing his opponent's numerous errors of fact, and the whole weakness of his argument, without allowing himself to be drawn into imprudent expressions. He conceded that all telescopic observations are, to be sure, in entire accord with the Copernican teaching, but as a devout Catholic one must consider the latter as false, since, according to the decision of the professional interpreters, it cannot be brought into accord with the Bible.

The Jesuits, completely mistaken in their expectations, denounced this work, in spite of all this, to the Roman Court of Inquisition. But as Galileo had dedicated it to Cardinal Barberini, who was still well disposed toward him, and who in the meantime had ascended the papal throne as Urban VIII., they accomplished little. Galileo was commended for his obedience to the commands of the Church, and for allowing the testimony of the senses against the teaching of the Church to remain in the background. Encouraged by this, Galileo went himself to Rome the following year (1624), in order if possible to accomplish the setting aside of the prohibition of the Copernican teaching. While in this he was not successful, he was repeatedly received in a friendly manner by the Pope, and the latter, in a letter to the Grand Duke of Tuscany,

even extolled Galileo's fame, which should "shine on earth, as long as Jupiter with his satellites in heaven."

What the provocations of the Jesuits had not been able to do, was brought about by the transient favor of the pope, namely, that Galileo abandoned the caution observed by him up to that time in writings designed for print. He composed a *Dialogue on the Two Most Important Systems of the Universe*, and in it, put the Aristotelian Ptolemaic System so in the shade by the Copernican, that in spite of the author's apparently taking sides with the first, no one could help being convinced of its untenableness, and of the correctness of the latter. In this work two personages appear under the names of deceased scholars and friends of the author, one of whom begs the other to initiate him into the Copernican system, of which there is so much talk now, and this the other does with great force of expression. Meanwhile a listener to the conversation, on whom was bestowed the fatal name of Simplicius, defends the old Aristotelian view of the world with all the insufficient arguments that up to that time had been current.

Of course, the arguments brought forward for Aristotle and Ptolemy proved themselves so weak, and were so promptly refuted, that every one saw merely a defence of an utterly untenable hypothesis. Galileo, it is true, pretended to be on the side of Simplicius and the Church, pointing out how beneficial and necessary had been the prohibition of the latter in regard to so seductive and absolutely irresistible a theory, and how greatly were to be extolled those from whom it had proceeded.

Galileo went again to Rome in the year 1630, in order to lay his work before the Holy Office, and obtain permission to print it. This required tedious negotiations, and the *imprimatur* was granted only through the addition of a singular closing conversation, in which the principal speakers repeat again with emphasis that they have been entirely mistaken, and thank Simplicius for his friendly advances and the communication of his exalted views, as well as for the priceless instruction granted to them. Despite this papal approbation, however, the censor, Nicolo Riccardi, said to Galileo at the outset that the Jesuits would attack his work most relentlessly.

This "Father Monstrous" (*il Padre Mostro*), as he was called on account of his enormous size, was not mistaken. The Jesuits did not doubt that the *Dialogue*, which appeared in print in the beginning of 1632 and was immediately received with approbation, would, by its masterly style and convincing clearness, win over all

educated men and overthrow all their efforts in the education of the young, if it succeeded in penetrating into wider circles. Hence it was necessary to act without delay, and, as always when the end justifies the means, there was found immediately the right means to change to bitter hatred the favor bestowed upon Galileo by the Pope. This was done by spreading abroad the rumor that this insolent creature had dared to introduce him, the Holy Father himself, under the quite too transparent and shameful pseudonym of Simplicius, and to set him in the pillory before all the world.



GALILEO.

From a picture in the Public Library of Oxford; engraved by J. Baker.

No sensible person will believe to-day that it could really have been Galileo's design to risk in this frivolous way the favor of the Holy Father so indispensable to him; he had obviously in mind Simplicius of Alexandria (died 549), and preferred the name on account of the secondary meaning of simplicity.

But the question might well be suggested whether the Jesuits, who certainly knew exactly what the new book of their arch-enemy

contained, did not perhaps inspire the easy-going Father Riccardi, whom they could easily hoodwink, with the idea of granting the *imprimatur* only on the condition that Simplicius be treated in the conclusion with the greatest reverence, in order to make so much the more probable the slander that the Pope was meant. It would have been a diabolical plan to ruin their adversary past recovery, but it would do honor to their sagacity, for the slander so cleverly brought forward found, as usual, a favorable ear; the Holy Father might even remember having uttered himself occasionally in his



THE VISIT OF MILTON TO GALILEO AT ARCETRI NEAR FLORENCE IN 1638.

Engraved by Ch. Baude from the picture by Tito Lessi, exhibited in the Salon of the Champs Élysées.

repeated conversations with Galileo general objections similar to those Simplicius offers against the Copernican theory. The result was that the Pope, from a warm admirer of Galileo, became a secret enemy, and gave the Jesuits entire liberty of action in the matter. The Catholic authors, it is true, consider it inconceivable that Urban VIII. should have listened to so clumsy a slander, and even Reusch believes that he may infer from some of his utterances that he gave no weight to the talk of his courtiers, but in my opinion these champions of the Jesuits deceive themselves when

they consider the insinuation entirely too clumsy, and forget to give another explanation of the Pope's sudden change of mind.

As early as August, 1632, there was issued in Rome a mandate prohibiting the further circulation of the book published in Florence, on the pretext that the permission to print was obtained in an underhand manner, and that Father Riccardi had been cheated. The Grand Duke of Tuscany, who was very kindly disposed to his court mathematician, but unfortunately was not very energetic, inquired through his ambassador Niccolini in Rome how it came about that a work approved a few weeks before by the Holy See was now forbidden. His answer from Father Riccardi was to the effect that there had been found in the archives of the Holy Office a protocol in which Galileo had sworn sixteen years before to Cardinal Bellarmine "neither to teach, to defend, nor even to discuss" the doctrine in question. This prohibition he had not only transgressed, but had concealed it from the censors, and obtained by artifice the permission to print.

What is to be thought of this pretended protocol has already been said above (p. 459). Even the most cautious critics, who, like Reusch, will not directly assert it to be a forgery, do not believe that it could have been read before Galileo at that time, as no mention of it occurs in the officially executed protocol. The celebrated Cardinal Robert Bellarmine, who is said to have addressed this admonition to Galileo, whose own works were placed in the Index, and to whom is attributed the witty saying, "Among the cardinals there are so few holy ones because they all wish to become the holiest of all" (that is to say, Pope), had been dead for more than ten years, and could no longer be consulted. Proceedings were begun against Riccardi, probably only to satisfy appearances, on the ground of inconsiderate granting of permission to print. But whether because they could find no ground for conviction, or because of his knowledge of the protocol affair, he came out so completely vindicated that he held the office of chief book-censor for the rest of his life.

Galileo's trial before the Inquisition was thereupon begun in great haste. On the 15th of September, 1632, the Tuscan ambassador was informed that the matter would be brought before the court of the Inquisition. A week later notice was issued to the inquisitor of Florence, that Galileo had been found guilty in the preliminary proceedings brought against him of transgressing a prohibition received by him sixteen years before, and that he was to come to Rome as speedily as possible in order to defend himself

before the Holy Office. Galileo was not for a moment in doubt that he was now delivered over to the mercy of the Jesuits, and that in spite of all his intercession he must expect the worst. This is plainly seen from a letter which he wrote in January, 1633, shortly before his departure for Rome, to the Paris lawyer Elias Diodati, stating so clearly the conception of his position that a large portion of his letter may be given here.

"If I ask the theologian," writes Galileo, "whose work is the sun, the moon, and the earth, their position and their movement, I think he will answer; these are the work of God. If I thereupon ask him further: On what inspiration does Holy Scripture rest? he will answer me: on the inspiration of the Holy Ghost, that is, of God Himself. It follows that the universe is the *work*, Holy Scripture the *word*, of God. If I now ask him further: Does the Holy Ghost ever use words that seem to conflict with the truth, because they are adapted to the uneducated mind and the ordinary intelligence of the common people? he will certainly answer me in agreement with the fathers of the Church, that one does indeed find this in Holy Scripture; that this is its peculiar manner of expression, and that in more than a hundred places the mere literal meaning would show, not heresies, but blasphemies, since in them God himself is represented as capable of anger, repentance, forgetfulness, indolence, etc. If I ask him whether God, in order to make his work comprehensible to the uneducated and unintelligent multitude, has ever altered his creation; whether nature, which is God's servant, but appears disobedient to man and can never be changed by all his efforts, has not always taken the same course, and does not still take it, I am convinced he will answer me that the moon has always been a sphere, although the people for a long time considered it a bright disk; in short, he will admit that nature has never changed anything to please us, has never fashioned her works differently in accordance with the wishes, the opinions, the credulity of men. If this is so, on what ground should we, while we wish to learn to know the world and its constituent parts, give the preference to God's word over God's work? Is the work less complete, less noble than the word? Supposing that the assumption that the earth moves were pronounced heretical, and that later observations, reflexion, the very body of the facts themselves, showed the movement of the earth to be irrefutably proven, would not the authority of the Church be greatly injured under those circumstances? On the contrary, if one assign only the second place to the word, as often as the work seems to oppose it,

one will do no harm to Holy Scripture. A number of years ago, when the great storm rose against Copernicus, I wrote quite a detailed memoir dedicated to Christina of Lorraine, in which, supported by the authority of most of the fathers of the Church, I tried to prove that it is a fatal misuse to call upon the authority of Holy Scripture so often in those questions of science that can be decided by observation. I asked that in future they forbear to use such weapons in discussions of this kind. As soon as I am less troubled I will send you a copy of this memoir. I say less troubled, because I am about to go to Rome, whither the Holy Office has summoned me, having also forbidden the circulation of my *Dialogues*. I hear from a reliable source, that the Jesuit fathers have inspired those in authority with the conviction that this book of mine is more abominable and more harmful to the Church than the writings of Luther and Calvin. . . ."

On the 20th of January, 1633, the old man, seventy years of age at that time, set out on the journey to Rome, but with fewer hopes and with less confidence than he had on his journey a few years before. He reached his destination on the 13th of February, and immediately took up his abode in the palace of the Tuscan ambassador, Niccolini, who naturally prepared for him the kindest reception. Concern for his future, and the journey, in those days so tiresome, had so weakened him that the ambassador feared for his life. On the 12th of April he appeared for the first time before his judges and affirmed that he had never received a prohibition such as that contained in the protocol mentioned. And such is the result of all recent historical criticism, that we dare no longer look in this statement for any conscious untruth, or for evidence of the forgetfulness of an old man. We are forced to believe his assertion that such a prohibition was wholly unknown to him, rather than his further statement that since the admonition received by him, he had no longer considered the Copernican theory as proven and worthy of belief. It is the same with his statement that he did not suppose himself in his *Dialogues* to have defended the Copernican system. The apologists of the Roman proceedings, such as the Barbarini librarian Sante Pieralisi,¹ have naturally not hesitated to conclude from this statement, contrary to all the truth, and from the final complete *Sacrificio dell' intelletto* at the abjuration, that they were dealing not only with a weak broken-down old man, but with an unprincipled, deceitful, obstinate, refractory, and querulous one, against whom the Church had not been able to de-

¹ *Urbano VIII. e Galileo Galilei*, Roma, 1875.

fend herself and secure peace in any other way than by means of these successful proceedings,—that in a word Galileo as a man did not deserve the sympathy that perhaps one owed him as a thinker and inquirer. We may possibly deplore this lack of firmness in the aged man, but we have hardly the right to make from it so insulting a reproof as has been done. This reproof rebounds powerless from Galileo and falls with its full weight upon the tormentors who forced him to this conduct. For we must consider that the prospect of torture and the stake never once left the sick old man in the prison of the Inquisition. The burning of Giordano Bruno (1600) and Lucilio Vanini (1619) were still fresh in memory, and Galileo had no desire to be a hero of the faith. He had no longing for the martyr's crown, nor was he a philosopher, whom it might disgrace to give up his convictions; he was simply a naturalist, whose observations were not attacked, but who was only forbidden to give them a precise interpretation.

He remained twenty-three days imprisoned in the palace of the Inquisition, and was brought before his judges four times. On the 16th of June, 1633, a decree was issued by the Holy Office, which arranged the criminal proceedings and threatened Galileo with the rack in case he would not confess the whole truth. On the 21st of June the last trial examination took place, of which it is said in the extant verdict pronounced on the following day: "As it seemed to us, however, that the whole truth was not told by you in regard to your purpose, we considered it necessary to have recourse to the *examen rigorosum* against you, where you answered as a Catholic."

From this official document some recent critics wish to draw the conclusion that the popular idea, that Galileo was tortured in order to extort his recantation, had foundation. It is significant enough that popular sentiment believed the ecclesiastical court capable of this inhuman proceeding towards a feeble old man who had always been found tractable. Nevertheless, it must be admitted that actual torture is just as little proved by the existing protocol as the contrary, for the expression *examen rigorosum* was at that time used as well for an examination in which the instruments of torture actually came into use, as for one in which they were shown and explained only as means of threatening in case the accused would not confess without it. So the *prospect* of torture was not spared him in any case, and this at least mental torture remains a blot which nothing can excuse in regard to a man who was not to be reproached for any serious heresy, but at

the worst only for simple disobedience. That he represented truth and his judges error, is not to be added in the balance.

From the particulars that have been ascertained it may be assumed as tolerably certain that Galileo in clear knowledge of his position and in the conviction that he had no forbearance to hope for, either from the Pope or from the Jesuits, did and conceded all that the Inquisition demanded of him. Professor M. Cantor has further called attention to the fact that the verdict which sentenced Galileo to a solemn abjuration of the Copernican theory, and to a still disputed punishment by imprisonment, seems not to have been unanimously held, for of ten cardinals who are represented at the head of the verdict as judges, only seven signed it. According to this, doubts seem to have sprung up within the ecclesiastical court itself, in regard to the method of procedure and the verdict passed.

The formula of abjuration, which probably followed immediately after the announcement of the sentence, contains, after the acknowledgment of the justice of the sentence passed upon him, the solemn promise wrung from him in face of torture: ". . . with an upright heart and unfeigned sincerity I abjure, execrate, and express my abhorrence of the above-mentioned errors and heresies (namely, that the sun, and not the earth, is the motionless center of the universe), and swear that in future I will never by word or writing assert or maintain anything whatever on account of which I might incur similar suspicion."

That he at the same time added to himself, "It moves just the same," and remained faithful to this belief to the end of his life, may, as has already been mentioned, be safely assumed.

He was released two days later from prison, and assigned as residence, under constant ecclesiastical oversight, the Villa Medici in Rome. Later, when his health was sufficiently restored for him to begin the journey, he was sent to Siena. At the end of the year he was allowed to return to his Villa Arcetri near Florence, while residence in Florence remained forbidden till his death. These measures, which made surveillance of Galileo easy and his seclusion much more strict, and from which the Pope, in spite of all the intercession of influential men, was not to be dissuaded, had the undesired result of giving rise to all kinds of stories; for example, that he had already suffered the pains of torture; and with the blindness resulting several years later the rumor was connected that both his eyes had been put out by the hand of the executioner in the prisons of the Inquisition! Pope Urban continued his hatred

and persecution even after Galileo's death, which occurred on the 8th of January, 1642, and this may be regarded as further proof that he believed the innuendos of the Jesuits. After the penitent sinner had been refused burial by the Church, the erection of a monument, for which arrangements had been made by friends and pupils, was discontinued by the special wish of the Pope, "because it is not fitting to honor by a monument a heretic sentenced by the Holy See to do penance, and who died before the expiration of his sentence."

The Church had won a great victory, for she had forced a weak old man seventy years of age, by all the engines of power at her command, to disown his convictions. There was naturally great rejoicing over it, and in the next fifty years there was poured out over the unbelieving a genuine flood of triumphant refutations of the Copernican system. Certain astronomers, protected and guided by the "star of the wise," found favor before the papal see. They belonged to the most faithful sons of the Church, and Prof. Scipione Chiaramonti of Pisa raged furiously against Copernicus, Tycho Brahe, Kepler, Galileo and all who opposed Aristotle and Ptolemy. He was most loyally aided by the Paris professor of mathematics and astrology Jean Baptiste Morin, who had already in 1631 launched against Copernicus a work on the *Solutio famosi problematis de telluris motu vel quiete*, and afterwards, in 1634 and 1642, had published various polemic treatises against him and Tycho Brahe. He got into a quarrel over them with his old friend, the celebrated philosopher Gassendi, who in a letter had declared himself for Copernicus. Against him he hurled first the polemic treatise *Alae terrae fractae* (1643) in which he believed that he had effectually broken the wings of the earth, and afterward the prophecy, read in the stars, that Gassendi should become fatally ill in the midsummer of 1650. When, however, the earth as well as Gassendi pursued its way unharmed, he drew upon himself from a friend of Gassendi the *Anatomy of a Ridiculous Mouse* (*Anatomia muris ridiculi*, Paris, 1651) to which he replied by his coarse epistle *Of the Three Impostors* (1654).

The Jesuit Riccoli had tried again in his *New Almagest* (1653) to restore and set going Ptolemy's complicated world-machinery with all its spheres and epicycles. But he no longer dared to decide for it absolutely, and wrote to Gassendi: "I know nothing essential to bring against the Copernican system, but I advise you not to express yourself for it openly and too decidedly." In secret he seems to have been an adherent of Copernicus, to whom he de-

licated one of the largest craters on his map of the moon. In his book, however, he brings forward only forty-nine arguments for



TOMB OF GALILEO IN FIRENZE. From a photograph.

and seventy-seven against Copernicus, among them naturally as the weightiest the decision of the court of Inquisition. But it is hardly worth while to examine more closely the last conclusions of

ancient but tenacious Aristotelianism, since through the discoveries of Kepler and Newton the true system of the universe soon became for the intelligent world an absolute fact, far removed from all uncertainty and supposition. The advice of Nikolaus Möller of Kiel, in his work *De indubio solis motu immotaque telluris quiete* (1724) or of Pastor Gottfried Kohlreiff in his *Babylonian's View of Heaven* (1744) to reject in the lump as suggestions of Satan the discoveries of Copernicus, Kepler, Des Cartes, and Newton, found only a very limited public.

The Roman Curia in the year 1835, in a new edition of the Index, struck out the works of Copernicus, Kepler, Galileo, and other earth-movers, after having previously made several exceptions. It thereby acknowledged that it had not earlier been inspired by the Holy Ghost, and that it no longer regards the belief in the central position of the earth as a preliminary condition of salvation. The Church now rejoices over the fact that her high dignitaries, inquisitors, censors, and other oppressors of reason have no successors who need to be ashamed of the deeds of their ancestors, and that Father Secchi actually ventured to make in St. Peter's (1851) the experiment of Foucault with the pendulum, that visibly wrote with its point upon the marble floor the words: "It moves just the same!"

Naturally there rises in spite of all this even in modern times now here, now there, some self-sufficient crank who will not admit the movement of the earth, like Karl Schöpffer with his lectures and pamphlets, *The Earth Stands Fast* (Berlin, 1854), *The Bible Does Not Lie* (Nordhausen, 1854), or Superintendent A. Frank in Sangershausen and Pastor Knak in Berlin who consider it a shame to be inferior in faith to the author of the Book of Joshua. Yet the tale was far less discrediting to the latter, and in general to any one not possessing our means of convincing himself of the vanity and impossibility of the Indian dreams of sun-capture and moon-charm, than it would be to a child of our day who can easily assure himself by a slight mental effort of the inadmissibility and absurdity of such notions. To what ignominy those expose themselves who wish such stories taught as truths to-day in the school, Tyndall has so well explained in one of his lectures that I can do no better than to give his words.¹

"The concerns of a universe regarded from this point of view were much more commensurate with man and his concerns than those of the universe which science now reveals to us; and hence

¹*Fragments of Science*, fifth edition, p. 404.

that to suit man's purposes, or that in compliance with his prayers, changes should occur in the order of the universe, was more easy of belief in the ancient world than it can be now. In the very magnitude which it assigns to natural phenomena, science has augmented the distance between them and man, and increased the popular belief in their orderly progression. . . . Let us take as an illustration the miracle by which the victory of Joshua over the Amorites was rendered complete. In this case the sun is reported to have stood still for 'a whole day' upon Gibeon, and the moon in the valley of Ajalon. An Englishman of average education at the present day would naturally demand a greater amount of evidence to prove that this occurrence took place, than would have satisfied an Israelite in the age succeeding that of Joshua. For, to the one, the miracle probably consisted of the stoppage of a fiery ball less than a yard in diameter, while to the other it would be the stoppage of an orb fourteen hundred thousand times the earth in size. And even accepting the interpretation that Joshua dealt with what was apparent merely, but that what really occurred was the suspension of the earth's rotation, I think the right to exercise a greater reserve in accepting the miracle, and to demand stronger evidence in support of it than that which would have satisfied an ancient Israelite, or than that which would now satisfy the archaic editor of the *Dublin Review*, will still be conceded to a man of science.

"There is a scientific as well as a historic imagination; and when, by the exercise of the former, the stoppage of the earth's rotation is clearly realised, the event assumes proportions so vast, in comparison with the result to be obtained by it, that belief reels under the reflexion. The energy here involved is equal to that of six trillions of horses working for the whole of the time employed by Joshua in the destruction of his foes. The amount of power thus expended would be sufficient to supply every individual of an army a thousand times the strength of that of Joshua, with a thousand times the fighting power of each of Joshua's soldiers, not for the few hours necessary to the extinction of a handful of Amorites, but for millions of years. All this wonder is silently passed over by the sacred historian, confessedly because he knew nothing about it. Whether, therefore, we consider the miracle as purely evidential, or as a practical means of vengeance, the same lavish squandering of energy stares us in the face. If evidential, the energy was wasted, because the Israelites knew nothing of its amount; if simply destructive, then the ratio of the quantity lost to that employed, may be inferred from the foregoing figures."

THE DEMOCRATIC CHRISTIANS AND THE VATICAN.

BY PROF. G. M. FIAMINGO.

THE party known as the Democratic Christians has become very prominent during the last few years. Joseph de Maistre, Chateaubriand, and Lamennais, those pre-eminently Catholic thinkers, were already in the early years of the century precursors or rather prophets of this movement, which for a time has been in abeyance. Pius VII., while as yet Cardinal of Chiaramonti and Bishop of Imola, insistently fostered the correlation that exists between Democracy and Orthodoxy; when he became Pope however he forgot these views. But gradually various members of the Catholic clergy, independently one of the other, felt themselves attracted toward the Democratic Christians, who represent the least Utopian section of the socialistic doctrines promulgated in Europe during the second half of this century. Nevertheless, the Catholic clergy, trained to a blind and passive obedience to the Church, dared not press forward too much upon this road without knowing first precisely how these new ideas would be received in Rome.

Leo XIII. unhesitatingly presented a benevolent attitude toward the chief representatives of these opinions. At an audience to a commission of French workmen in 1889 he pronounced himself in a fairly explicit manner as to the "just vindication of the rights of workingmen," nor did he delay publishing the Encyclical *Rerum Novarum*. Monsignor Ireland, the leader of the new Christian movement in the United States, at a conference held in Paris in 1892 said: "All hail to Leo XIII., the Pope of the century so providentially at the head of the Church in this great historical crisis. It seems as though she had arrived at the supreme hour of her life. The schism between the Church and the century was continually widening. She had been rejected and combated by governments, the people no longer confided in her. Social move-

ments had perfected themselves without her consent; Catholics, alarmed and discouraged, raised isolation to a law, nay, almost a dogma. Then Leo spoke, Leo acted, Leo reigned. The Church is launched upon the world, her presence is again felt everywhere, she enforces respect, she is listened to with an attention that is entirely new."

When Monsignor Ireland spoke thus, he had just returned from Rome. His mode of speaking was bright and cheerful, his eloquence free from clerical airs, he showed himself the apostle of an Idea, satisfied with his own work.

Several years have passed since then during which the leaders of the Democratic Christian movement have had ample opportunity of extending their mode of action. We are now met with this important aspect of the phenomenon; does the influence of the Democratic Christianity correspond to that which Leo XIII. and the Vatican expected?

Leo XIII. is unquestionably a pious and profound Christian, and he had publicly expressed deep sympathy with the working classes when Cardinal at Perugia. But on becoming Pope, aged and saddened also by the outbreaks of revolutionary socialism in Italy in 1878, he assumed an attitude openly hostile to the socialist movement and avoided any mention of the working classes in his Encyclical letters. He had even excommunicated the American "Knights of Labor." Hereupon Cardinal Gibbons set out for Rome with the express purpose of inducing Leo XIII. to revoke this excommunication, and not only did the Cardinal obtain this end, but he also convinced or at least pressed upon Leo XIII. the conviction that the Church could not range herself openly against socialism without thereby losing a considerable number of her adherents, especially those belonging to the laboring classes. Now, as said above, the theories of the Democratic Christians were really in accordance with the social opinions held by Leo XIII. when he was only a Cardinal. He had, however, considered it his duty, or at least necessary, to keep them secret when elected to the See of St. Peter's. If, after his interview with Cardinal Gibbons, the Pope decided to manifest his adherence to the principles of Democratic Christians, first obscurely and then openly in his Encyclical *Rerum Novarum*, it is surely because they were recognised by him as a wise and sure means, suggested by the new social conditions, for the acquisition of fresh members to the Church. In short, the ideas of the Democratic Christians were accepted by Leo XIII. as an expedient for propagating the Catholic faith. Such is, above

all, the view of Cardinal Rampolla, who, besides being Papal Secretary of State, exercised a great moral influence over the Pontiff, one might almost call it a great psychological sway. Hence whilst Leo XIII. proclaims the fundamental theories of Christian Democracy from the Pontifical Throne, Cardinal Rampolla overwhelms with personal attentions, or with polite letters, those prelates who in various lands put themselves at the head of this social movement.

Thus encouraged by the words of Leo XIII. and the action of Cardinal Rampolla, these prelates who have imbibed the principles of Christian Democracy are apt to go to some lengths in their actions, engaging in excessively active propaganda. Not infrequently in order to uphold this propaganda they become drawn into exaggerating and even altering the principles of Christian Democracy as proclaimed by Leo XIII. Thus Giuseppe Torniolo, a Catholic and professor of political economy at the University of Pisa, well known as having assisted Leo XIII. in elaborating the Encyclical *Rerum Novarum*, which some say was written by him and only modified by Leo XIII., this same Giuseppe Torniolo, in a recent Catholic Congress held at Padua, proclaimed that it is iniquitous to pay interest on capital. Now, the most elementary notions of political economy suffice in order to understand that the recognition of such a theory would subvert the whole organisation of private property as at present established. These theories are the more surprising as coming from a person so cultured and self-possessed as Professor Torniolo, but they serve to demonstrate how, having once entered upon a certain train of ideas, even when wishing to circumscribe the consequences, nevertheless little by little more radical and graver conclusions than those adopted at the beginning are finally accepted. This is what has happened to Christian Democracy especially in the United States on account of the initiative taken by Monsignor Keane and Ireland. Christian Democrats leaned more and more toward socialistic theories, and it was owing only to the influence exercised in Rome by the United States that the works of Henry George were not placed upon the "Index" and hence forbidden to be read by Catholics. Thus the works of Henry George are exempt, while publications of infinitely more temperate views figure upon the "Index," amongst others, as an example, the poems of Ada Negri, which, although they were received with much favor and printed in thousands of copies, yet will never bring about a social revolution.

In the United States the Democratic Christian movement has

advanced so far beyond the limits assigned to it by the Encyclical *Rerum Novarum* that the followers of Monsignor Ireland and Keane almost constitute a new Catholicism based upon social foundations differing substantially from those of Roman Catholicism, notwithstanding the Papal Encyclical on the conditions of the laboring classes. No wonder that Monsignor Ireland and Keane are no longer in favor at Rome. Monsignor Keane was compelled by the Vatican to resign the rectorship of the Catholic University at Washington and was summoned to Rome. At Rome he was nominated Counsellor of one of the Congregations of the *Propaganda Fide*. The newspapers hastened to report this fact as though it were of great importance, but the nomination denoted no special honor. The Pope then nominated Monsignor Keane Canon of Santa Maria Maggiore, thus securing to him a permanent but by no means large income. This treatment of Monsignor Keane is very different from that which the leaders of the Democratic Christian movement received when they came to Rome some years ago. The Papal condemnation at last of what has been named "Americanism" is a thing well known by everybody.

If in the United States the socialist character of the Democratic Christian movement becomes more and more accentuated, in Europe it rather takes the form of a political party having a socialist programme. This characteristic European Christian Democracy is more conspicuous in Italy than elsewhere. Take, for example, the last document issued by the "Directing Council of the Work of Congresses and Catholic Committees in Italy" to the presidents of their Provincial Committees on the approaching political elections. In this document, which bears the date of March 3, 1897, it is said that the *non expedit*, which, by a solemn declaration, was approved by the Pope in audience on June 3, 1886, a declaration ratified in the Pontifical Letter of May 15, 1895, *prohibitionem important*, is by no means revoked and must therefore still be enforced.

"Now no more is necessary for Italian Catholics and especially for those belonging to Catholic Societies and Committees in order to know their special duties, and to make these known to others, duties which consist of two points:

1. To abstain entirely from political elections.
2. To dissuade all Italian Catholics from taking part in the same and from transgressing a prohibition which is absolute and general, even in those special cases when it might appear that some advantage would be gained by the success of a deputy of

temperate views over another with opinions openly hostile to Catholics."

This language on the part of the Directing Council of the Work of Catholic Congresses is most explicit. It leaves no loophole for doubt and at the same time makes clearly manifest the object aimed at by this absolute command that all Catholics shall abstain from taking part in Italian political life. It does not, however, attain its object, which is that of paralysing this same political life. Now these Italian Catholics who have formed themselves into societies for the propagation of the new Christian Democratic principles, hold frequent congresses and publish many manifestos concerning the solidarity which binds them in the performance of this social work. Still in reality their secret motive and their true object is essentially political, and under the guise of a purely social movement they continue their campaign for the recovery of the temporal power.

Now in Italy the work of these new Catholic societies is based on a socialistic programme, whether it be that of Christian Democracy or the rural banks now instituted everywhere by the Catholics for the purpose of lending small sums to those peasants who make a public confession of Catholic faith or whatever other form it takes, and this entire social movement though it appears inspired by purely philanthropic aims is on the contrary called in Italy, and rightly, "the clerical reaction." Hence this "clerical reaction" is opposed by all liberal Catholics who assign a purely spiritual function to the Church, and these constitute the great majority of Italian adherents to the Roman Church. Even in Italy, therefore, the new principles of Christian Democracy create a profound divergence among Catholics. Thus the Vatican by encouraging the principles of Christian Democracy runs counter to the views of all such Catholics whose opinions are for the most part ultra-conservative, and who regard Christian Democracy, even when held within certain limits, as a concession made by Catholicism to socialism. Such Catholics fear that, the door having once been opened to compromise, it will be found difficult to stop at the right point. Even in Italy, therefore, the principles of Christian Democracy, in lieu of gaining new followers for the Church, excite a schism among Catholics upon a most serious political question and is the cause of the sense of distrust with which conservative Catholics regard the Vatican that sympathises with those subversive social ideas. The effects of the opinions held by the Italian Christian Democrats on Italian Catholics reveal themselves in a series of facts, more or

less evident and explicit, which cannot be ignored by the Vatican. Thus when some months ago the Abbé Rinaldo Anelli, a priest who had sacrificed all his energy and patrimony to the improvement of the conditions of the working classes, committed suicide at Milan, those newspapers which reflect the Vatican atmosphere commented most unfavorably upon the sad event, blaming Abbé Anelli for having "dedicated himself more to the material well-being of the people than was justified by his priestly profession." This means that the organs of the Vatican, instead of praising and urging on the work of the Christian Democrats, as formerly, now deplore their activity which they pronounce as excessive!

In Austria, in Belgium, and especially in France, where the principles of Christian Democracy were more quickly and more widely diffused than elsewhere, these principles have nevertheless by no means brought about those results which Leo XIII. hoped to obtain when he pronounced the Encyclical *Rerum Novarum* and encouraged the work of those who accepted those principles and were ready to support and defend them. But if it cannot be said that Leo XIII. has been disillusioned on this subject, because the principles set forward by him in the Encyclical *Rerum Novarum* concerning the condition of workingmen were really his true convictions which he had long professed and publicly manifested during the Lent of 1877 in a pastoral letter, when Cardinal Bishop of Perugia, there must have been a disillusion in that section of the Vatican environment which induced Leo XIII. to favor those principles of Christian Democracy from which they hoped to obtain for the Roman Church and for Catholicism such far different results from those eventually produced. Instead, the new principles announced by Leo XIII. provoked the diffidence of those Catholics whose social sentiments were of a pronounced conservative type, and the more so because at the beginning those principles were put forth under the name of "Catholic Socialism." That word socialism made an impression upon the Catholic majority. Almost immediately all the great Catholic authors and orators repudiated this denomination, among them Charles Perin, Cardinal Langénieux, Monsignor de Cabrières, le Père de Boylesve, Professor Toniolo, but although the name of "Catholic Socialism" was changed to that of "Christian Democracy," yet the distrust and suspicion felt was not dispelled. Catholics and especially those of the middle class are profoundly conservative in their social ideas, and in trying to steer between the socialist dangers hidden in the Vatican programme that made concession to the laboring class, and

assume an entirely passive and inactive attitude toward the social question, they find themselves by reason of their innate tendencies impelled toward the latter alternative. On this account two Catholic schools of thought are now found in every Catholic country, that of the conservative Catholics, to which almost all bishops belong; and a minority that upholds the Christian Democracy encouraged by the attitude first assumed by the Vatican toward social questions.

Dissensions and differences caused by the disparity of opinions between these two schools are not infrequent. All over the world Democratic Catholics are acting with greater boldness and decision, as for the matter of that do all young factions which have faith in their future and are emboldened by their first successes. Consequently it happens that not infrequently they rebel against episcopal mandates. Desirous to act on their own account, they refuse to acknowledge any other ecclesiastical hierarchy, save the supreme authority of the Vatican, which had deputed them to propagate the principles of Christian Democracy.

A few months ago matters came to such a pass that Monsignor Couvillé, Archbishop of Lyons, was obliged publicly to censure an assembly held by the French Democratic Christians in this episcopal town. Monsignor Couvillé has since visited Rome and was received by the Pope, to whom he pointed out the gravity of the dangers caused by the dissensions now troubling French Catholics by reason of the view held by the Democratic Christians. Monsignor Couvillé's conduct was lauded, and he was ultimately rewarded with a Cardinal's hat.

A painful impression was made lately in Vatican circles by the victory the Conservatives gained over the radical Catholics in the Swiss Canton of Ticino. A fierce struggle has long waged between these Catholics and the Christian Democrats who have also manifested a desire after autonomy and an intolerance toward their ecclesiastical superiors, which can only be compared to that demonstrated by the monks of the first eras of Christianity.

In 1894 Leo XIII. issued a paternal invitation to the Christian denominations, exhorting them to return to the bosom of the Church. In so doing he abandoned for a moment the traditional exclusiveness of the Roman Church, giving instead full expression to his own merciful and conciliatory spirit. But in the latest Encyclical on this theme that constitutes, as Leo XIII. himself says, "a not inconsiderable part of his thoughts and anxieties," the Vatican's hatred of change, the ideas of ecclesiastical hierarchy,

of the supremacy and absolute superiority of the Church of Rome, have regained the upper hand. This means that since a few years that section of the clerical party which is most strictly conservative and exclusive is once more dominant in the Vatican and exercises a complete influence over the Pontiff. Democratic Catholics, by reason of the problems and questions which their doings excite amongst their co-religionists, may expect an early public manifesto from Leo XIII. This is just now being foretold by undoubted signs. In the spirit and substance of this coming manifesto the mild and compassionate character of Leo XIII. will not appear. It will be superseded by Vatican opinions, wherefore the new words of the Pope will solemnly refute the programme of the Christian Democrats put forth in the Encyclical letter *De Conditione Opificum* just as the tendency now dominant in the Vatican denies the principles of unity among the Churches, proclaimed by Leo XIII. in 1894 and upon which such extravagant hopes had been based for the future of Catholicism and of Democratic Christianity.

THE EVOLUTION OF ANGELS AND DEMONS IN CHRISTIAN THEOLOGY.

BY R. BRUCE BOSWELL.

THE Hebrew word for angel (*malakh*)¹ is not a specialised term for a celestial messenger or a divine agent. It may be, and actually is, employed as applicable to human beings as well. The very same ambiguity occurs in the use of the equivalent Greek term (*ἄγγελος*) from which our own word "angel" is derived.² Of a nature superior to that of man, "the heavenly host," when manifesting themselves on earth, are usually represented, both in the Old and New Testaments, as of manlike aspect, though revealing it may be some features of superhuman majesty.³ If Cherubs and Seraphs are to be regarded as angels, then an animal or even monstrous form may be attributed to them when seen in prophetic vision or as constituting part of the furniture of the sanctuary; but, as a matter of fact, these ambiguous beings never take any part in angelic ministry among men, but remain either in close attendance upon the Divine Presence, or as guardians of forbidden precincts. The fallen angels of Christian theology, the declared antagonists of God, are unknown as such to the earlier Scriptures. A disastrous union between "the sons of the Elohim" and "the daughters of men" is somewhat abruptly mentioned⁴ in an early

¹ "Malachi" means "my angel"; see Malachi iii. 1.

² Instances of doubtful interpretation occur in Judges ii. 1 and Rev. i. 20.

³ "A man of God came unto me, and his countenance was like the countenance of the angel of God, very terrible" (Judges xiii. 6, R. V.). This terrible aspect is also emphasised in Matt. xxviii. 3-4,—"His appearance was as lightning . . . and for fear of him the watchers did quake and became as dead men." So in Dan. x. 6: "His face as the appearance of lightning and his eyes as lamps of fire." The angels of modern art are evidently very different from their ancient prototypes! For the superhuman wisdom of angels, see 2 Sam. xiv. 19-20; xix. 27. For their strength, see Psalm ciii. 20.

⁴ "The sons of God came in unto the daughters of men." Their leader in Enoch x. is called Azazel ("the strength of God," a name formed like those of the archangels Michael, Gabriel, Raphael, etc.), and he is there said to have been bound by Raphael and cast into a chasm in the desert of Dudael. To him it was that the scape-goat was devoted on the day of Atonement (Levit.

chapter of Genesis (vi. 1-4), belonging to what is apparently the most ancient stratum of the present text, but there is nothing to indicate in the passage itself, as contrasted with later interpretations, that this connexion involved any lapse from innocence, or was visited with divine displeasure. The "evil angels" of Psalm lxxviii. 49 (more correctly translated "angels of evil" in the Revised Version) are the authorised agents of Yahweh's wrath, and Satan himself (another equivocal term, applied sometimes to human beings)¹ is the "Adversary" of man rather than of God.²

The idea of intelligent personality attaching to inanimate objects and phenomena has, doubtless, as prime mover, set to work all the complicated machinery of Jewish and Christian angelology and demonology. Evident traces of such "animism" are met with alike in the Old and New Testament. The stars in their courses fight against Sisera (Judges v. 20), or sing together for joy at the creation of the world (Job xxxviii. 7), the winds and the waves, no less than the wasting fever, are subject to rebuke (Matt. viii. 26; Luke iv. 39).

The second stage of animism is reached when the control of natural forces is attributed to invisible beings separate from the phenomena over which they preside. The host of heaven (*Sabaoth*) are not so much the stars themselves as the astral spirits who are responsible for their movements;³ other angels are the authors of disease and death;⁴ while the Cherubim and Seraphim seem to support the thunder-clouds and to coruscate in the lightning as spirits of the storm. The angels of wind and of fire, of whom strange things are told in the legendary lore of the Talmud,⁵ are already vaguely outlined in the language of a Psalm which declares that the winds are Yahweh's messengers and his ministers are flames.⁶ The Revelation attributed to St. John, like the earlier

xvi.). Iblis according to Mohammedan belief was called Azazel before his fall, which followed upon his refusal to do homage to Adam at God's command.

¹ See 2 Sam. xix. 22 and Matt. xvi. 23 (cf. John vi. 70 where the Greek Διάβολος is probably equivalent to the Hebrew word "Satan").

² Cf. 1 Chron. xxi. 1 with 2 Sam. xxiv. 1, where what in the earlier book is attributed to Yahweh himself is in the later one assigned to the agency of Satan. In Job i. 12 and ii. 6 Satan receives a direct personal commission from God.

³ See Ps. cxlviii. 2-3; Isa. xxiv. 21 and xlv. 12; and cf. for different meanings of "the host of heaven," Gen. ii. 1; Ps. xxxiii. 6; Dan. viii. 10; and Luke ii. 13.

⁴ Exod. xii. 23; 2 Sam. xxiv. 16; 2 Kings xix. 35, etc.

⁵ "The Angels of Wind and of Fire

Chant only one hymn and expire," etc. (Longfellow, *Sandalphon*).

⁶ Ps. civ. 4. On the strength of this assertion, a Father of the Church (St. Basil, M. de Spir., S. 16) maintains that the angels, as an actual order of intelligent creatures, are "an airy wind, an immaterial fire"; and this is their elementary constitution according to other high author-

apocalypse of Enoch,¹ is full of such nature-angels, as well as of those belonging to a supernatural order. Thus we read of angels "holding the four winds of the earth" (Rev. vii. 1),² of "the angels of the waters" (Rev. xvi. 5; cf. John v. 4), and of "another angel . . . that hath power over fire" (Rev. xiv. 18). An angel stands in the sun (Rev. xix. 17), as if, like Uriel in *Paradise Lost*, he were its appointed guardian; but elsewhere a star is spoken of as itself a conscious being to whom is given a commission which is faithfully discharged (Rev. ix. 1-2). That the heavenly bodies are instinct with life is a doctrine implied, as well as openly expressed, in many parts of the Book of Enoch, the groundwork of which belongs in all probability to the second century B. C. This was also the doctrine of the old Persian religion, was held as more than probable by Greek philosophy, and has been discussed by learned teachers of the Christian faith in a pre-scientific age as at least a tenable theory.³ It is something more than a mere poetical conceit, which, in the mind of prophet or psalmist, marshals the stars as an army, each unit of which is obedient to the voice of divine command;⁴ a "divine judgment on the astral spirits" (T. K. Cheyne) seems to be implied in the language of Isaiah xxiv. 21, and Jude's allusion to "wandering stars for whom the blackness of darkness hath been reserved forever" (Jude 13), is in close connexion with his previous statement that "angels which kept not their own principality, but left their proper habitation, he hath kept in everlasting bonds under darkness unto the judgment of the great day" (Jude 6). So in the Book of Enoch astral spirits are punished for disobedience in failing to come forth at their appointed time.⁵ Even in modern hymns stars and angels are sometimes coupled together as identical or closely related "powers of heaven,"⁶ just as in the Book of Job we read that "the morning

ities, who, as systematic theologians, habitually turn sublime poetry into ridiculous prose. Cf. Heb. i. 7.

¹ See R. H. Charles on Enoch ix. 12, and cf. W. J. Deane on the Book of Jubilees, *Pseudepigrapha*, p. 228.

² Cf. Zech. vi. 5: "the four spirits [winds, R. V.] which go forth from standing before the Lord of all the earth."

³ See Hagenbach's *History of Doctrines* (Clark, 1846), Vol. I., p. 345, quoting from Augustine a passage (*Enchirid. ad Laur.* 58), in which he expresses some uncertainty whether the sun, moon, and all the constellations do or do not belong to the society of those blessed and celestial beings who are called by the general name of angels. Cf. Aristotle, *De Celo*, Lib. ii., cap. 12, where the heavenly bodies are referred to as living and divine.

⁴ Cf. Nehem. ix. 6; Ps. cxlvii. 4; Isa. xl. 26. In the apocryphal Book of Baruch we read (iii. 34): "The stars shined in their watches, and were glad: when he called them, they said, Here we be."

⁵ See Enoch xviii. 3-16 and xxi. 3-6 (R. H. Charles).

⁶ "At His voice creation
Sprang at once to sight;

stars sang together, and all the sons of the *Elohim* shouted for joy" (Job xxxviii. 7).

"It is the characteristic of the Oriental, and especially of the Semitic mind," writes Dean Farrar (*The Life of Christ*, Appendix, Excursus vii) "to see in every event, even the most trivial, a direct supernatural interference, wrought by the innumerable unseen ministers—both good and evil—of the Divine Will. The definite form in which the belief clothed itself was, by the admission of the Jews themselves, derived from Babylon." Angels are introduced into the naïve narrative of the early history of the chosen people with considerable frequency, bearing divine commissions of mercy or of judgment, threats or promises; and their intervention becomes even more conspicuous in later Jewish writings like those that go by the titles of Daniel, Tobit, Enoch, and Fourth Ezra (Second Esdras in the English Apocrypha), in which special names are first assigned to them. Direct communications with Yahweh Himself, the form in which primitive tradition seems to have invested such marvellous events, were gradually superseded by intermediate agency; but many traces are still left of the bolder belief.¹

Growing awe and appreciation of the transcendent nature of the Divine Being rendered such theophanies difficult to accept in a literal sense, and the crudity of the original account was often toned down and brought into accordance with maturer ideas. This tendency may be seen at work in many different parts of the Bible. In Exodus (xx. 1, 19, 22) we read that God Himself uttered the Decalogue in an audible voice, but St. Paul writes (Gal. iii. 19) that the Law "was ordained through angels by the hand of a

All the Angel faces,
All the hosts of light,
Thrones and Dominations,
Stars upon their way,
All the heavenly orders
In their great array." ("At the Name of Jesus," etc.)

So in the ancient hymn known from its opening words as *Te Deum* after the declaration "To Thee all Angels cry aloud" we find mention made in detail of "the Heavens and all the Powers therein, the Cherul-im, and the Seraphim." For the origin of this term "Powers of the Heavens" see Matt. xxiv. 29; Mark xiii. 25; and Luke xxi. 25-26, where the sun and moon and stars are found in close association with a phrase used elsewhere of angelic personalities (Eph. i. 2; 1 Pet. iii. 22). Our own words "influence," "dis-aster," "jovial," "saturnine," "mercurial," etc., are relics of belief in good or bad stars or planets.

¹ "They heard the voice of Yahweh Elohim walking in the garden in the cool of the day" (Gen. iii. 8).

"Jacob called the name of the place Peniel: for, said he, I have seen God face to face, and my life is preserved" (Gen. xxxii. 30).

"Yahweh spake unto Moses face to face, as a man speaketh unto his friend" (Exod. xxxiii. 11).

mediator,¹ and the author of the Epistle to the Hebrews (ii. 2) refers to the same code as "the word spoken through angels." The plagues which fell upon the land of Egypt are all attributed to the instrumentality of "angels of evil" in Psalm lxxviii. 49, whereas, except in the case of the death of the first-born, they appear in Exodus (iii. 2, sq.) as due to the immediate action of Yahweh. He too is distinctly implied as the subject of the verb "appeared" in 2 Chron. iii. 1, where reference is made to the vision which David had at the threshing-floor of Ornan; but in 2 Sam. xxiv. 17 and in 1 Chron. xxi. 16 the celestial visitant is described as "the angel of Yahweh." Even in the course of the same narrative traces of editorial revision are sometimes to be detected in the inconsistency of the terms employed. Thus in Exod. iii. "the angel of Yahweh," who appears "in a flame of fire out of the midst of a bush," (verse 2, Cf. Acts vii. 35) afterwards figures as Yahweh himself (verses 4 to 6).² So in Hos. xii. 3, 4, Jacob's "power with God" is explained in a sense less derogatory to deity than the oldest form of the legend may have suggested: "Yea, he had power over the angel and prevailed."³

In the Hexateuch these marks of composite origin are eminently conspicuous, and it would be tedious to dwell upon them all.⁴ A somewhat startling instance of language apparently in direct contradiction rather than modified is found in 1 Chron. xxi. 1 as contrasted with 1 Sam. xxiv. 1, the importance of which has already been pointed out. But Satan, it must be remembered, was not regarded in the early stages of his development as the author of all evil, whose works it is the function of divine power to destroy (1 John iii. 8), and whose kingdom is opposed to that of God (Matt. xii. 26-28), but only as the subordinate agent of His providential dispensations, the executor of His most obnoxious decrees. More and more odium naturally attached itself to such an office in human estimation, until it came to be considered the spontaneous operation of pure malignancy.⁵ An Isaiah could declare (xlv. 7)

¹ Compare Acts vii. where (verse 53) Stephen addresses his Jewish hearers as having "received the Law as it was ordained by angels," and (in verse 38) refers to "the angel which spake to 'Moses' in the mount Sinai." We find much the same statement in Josephus (*Antiq.* xv. 5, 3).

² Cf. Judg. vi. 11 and 14; xiii. 13 and 22; Zech. iii. 1, 2.

³ Cf. Gen. xxxii. 28 and 30 with verse 24.

⁴ Cf. Gen. xvi. 10, 11 with verse 13; xviii. 1 with the sequel, and verse 9 with verse 10 (the plural "they" becomes the singular "I"); xviii. 33 and xix. 1 with xviii. 2; xix. 17, 22 with verses 15, 16; xxxi. 11 with verse 13; xlviii. 15 with verse 16; Exod. iii. 2 with verses 4 etc.; xii. 12 with verse 23; xiii. 21 with xiv. 19; xxxiii. 20, 23, with xxxiii. 14, 15; Numb. xxii. 18 with verse 35; Josh. v. 13-15 with vi. 2.

⁵ This may have been due in some measure to the influence of Persian dualism; but the step was one which might have been taken spontaneously, in the natural order of evolutionary specu-

and that unreservedly,—“I form the light and create darkness ; I make peace, and create evil ; I am Yahweh that doeth all these things” ; and an Amos could exclaim (iii. 6),—“Shall evil befall a city, and Yahweh hath not done it?” The Deity, in his own person, could at one time be represented without offence as putting a lying spirit into the mouth of the prophets (1 Kings xxii. 23), and even Ezekiel could say of one whose inspiration was fictitious, —“I, Yahweh, have deceived that prophet” (xiv. 9). Yet such a false prophet was still deemed worthy of punishment (cf. 1 Kings xiii. 20 etc.), no less than Pharaoh whose heart Yahweh himself had hardened (Exod. iv. 21).

The Book of Job exhibits an intermediate phase of opinion, where Satan enters Heaven with “the sons of the *Elohim*” and receives permission from the Almighty to afflict the man of Uz in order to test his integrity. In Zech. iii. 1-2 Satan is again the official “Accuser,”¹ bent upon finding matter of blame in the highest and holiest of men ; but here he incurs rebuke² for excess of zeal, if for nothing worse. It is only in the New Testament that Satan (or the Devil)³ assumes a position of direct antagonism to God, “the God of this world” who “hath blinded the minds of the unbelieving” (2 Cor. iv. 4).

“The Angel of Yahweh,” afterwards developed into the *Logos* or word of God,⁴ was the bridge between the visible and invisible worlds, the medium of communication between man and God. Some critics have seen in the *Malakh Yahweh* a sort of divine double (see Zech. xii. 8), akin to the *Ka* of Egyptian theology, or even a manifestation of deity in human form, an idea which readily lent itself to identification with the Second Person of the Trinity,

lation on the origin of evil, a problem suggested in the first instance by the experience of physical pain. First the pains themselves might be personified, or referred to supernatural powers malevolent or capricious, before being supposed to have any connexion with sin, or as the penal visitation of God. Sin and suffering are then regarded as alike due to divine agency, direct or indirect (*Quem deus vult perdere prius dementat*). But the moral revolt against such theology leads to the attribution of sin and at least unmerited suffering, to a spirit of evil, more or less at strife with good.

¹ Cf. Psalm cix. 6 and Rev. xii. 10.

² Cf. Jude 9.

³ A Greek word of much the same meaning as the Hebrew “Satan” (and used to translate it in the Septuagint), except that the Counsel for the prosecution in the Court of Heaven is not only an Accuser but possibly a Slanderer as well.

⁴ The *Logos* of Philo is the *Memra* of the Chaldee paraphrase or Targum, which word often takes the place of the ineffable name Yahweh when it occurs in the sacred text. In the *Ascension of Isaiah*, a composite Jewish and Christian apocalypse, “the angel of the Holy Spirit” is an expression that meets us more than once (iii. 15 ; ix. 36, 40), in accordance with the attribution by Zechariah of the office of prophetic inspiration to “the Angel of God” (ii. 12-17, etc.). So also in the *Pastor of Hermas* (Mand. xi. 9) we read of “the angel of the prophetic spirit.”

at an early stage of Christian belief.¹ "The Angel of Yahweh" first appears in Hebrew history, as told by compilers of a comparatively late date, in connexion with the story of Hagar (Gen. xvi. 7-11 and xxi. 17). The same unique representative of the Divine Being (also called "the Angel of God") interposes between Abraham and the sacrifice of his son (Gen. xxii. 11 and 15), speaks to Jacob in a dream (Gen. xxxi. 11), is seen by Moses "in a flame of fire out of the midst of a bush" (Exod. iii. 2), goes before or retires behind the host of Israel, to guide or to guard them (Exod. xiv. 19), stands in the way against Balaam with drawn sword (Numb. xxii. 31), manifests himself to Gideon (Judg. vi. 11-22),² to the parents of Samson (Judg. xiii. 3-21) and to David at the threshing-floor of Araunah (2 Sam. xxiv. 16, 17), gives commands to Elijah the Tishbite (2 Kings i. 3 and 15), and smites the camp of the Assyrians (2 Kings xix. 35).³ The Septuagint translates the Hebrew phrase into Greek sometimes with, and sometimes without, the definite article, but its equivalent in the New Testament is invariably *ἄγγελος κυρίου* without *ὁ*, except in reference to a previous mention of the heavenly messenger.⁴ The expression is, however, clearly intended to represent the *Malakh Yahweh* of the Old Testament;⁵ and those who would identify that matchless Angel with Jesus Christ must, it would be imagined, find themselves in an awkward strait, when confronted with Matt. ii. 13 where "the angel of the Lord" can hardly be the same as "the young child."⁶

The human aspect of Yahweh's special representative is so strongly marked that, as in the case of less august messengers, he is called a man in one place and an angel in another.⁷ Even God Himself is sometimes described in terms so crudely anthropomorphic⁸ that it need not surprise us to find a mere angel eating and drinking (Gen. xviii. 8), or playing the part of a wrestler (Gen. xxxii. 24 compared with Hosea xii. 4). Such archaisms as those enumerated in the last footnote were not unfrequently toned down in later versions and expositions. Thus the Septuagint translates

¹ See 1 Cor. x. 4; John viii. 56-58; Justin Martyr *Trypho*, lvi-lx.

² Judg. ii. 1 is of doubtful meaning. See R. V.

³ Cf. 1 Chron. xxi. 12 and Psalm xxxiv. 7.

⁴ Cf. Luke i. 11, 13, etc.

⁵ Cf. Acts xii. 25 with 2 Kings xix. 35 in the Septuagint.

⁶ See *Synonyms of the New Testament* by R. B. Girdlestone, p. 70. The Angel of Yahweh and the Divine Being are clearly differentiated in Zech. iii. 12.

⁷ See Judg. xiii. Cf. Gen. xviii; xix; Mark xvi. 5; Luke xxiv. 4; Acts i. 10; x. 30.

⁸ See Gen. ii. 2, 7, 21; iii. 8, 21; viii. 21; xviii. 21; Exod. iii. 6; xxxiii. 23, etc.; Judg. xiii. 22; Isa. vi. 5.

Exod. xxiv. 10 ("they saw the God of Israel"—*Hebrew*), "they saw the place where the God of Israel stood"; and professional interpreters of the sacred text into the Aramaic vernacular of post-exilic Judaism were warned by high authorities to construe the same passage as "they saw the glory of the God of Israel."

A *plurality* of angels, or divine envoys, would seem not to have been the earliest form in which the idea of mediation between God and man was conceived: "the Angel of Yahweh" came before "angels of God," and even they, at first, are probably to be distinguished from "the sons of God" of whom we read in Genesis and Job,¹ as well as from the cherubim, first mentioned in connexion with Paradise (Gen. iii. 24), and the seraphim of Isaiah's vision (Isa. vi. 2 sq.). When angels were thought of as "a multitude of the heavenly host" (Luke ii. 13), they were regarded as "sons of God" in a somewhat different sense from what the term would have originally signified.² "The probability is," writes Prof. A. B. Davidson in Dr. Hastings' *Dictionary of the Bible*, "that the right rendering is not 'sons of God' but 'sons of Elohim'—that is, members of the class of beings called Elohim and Elim, just as 'sons of the prophets' means members of the prophetic order." In Genesis vi. they are evidently intended to be superhuman if not divine, the heroes of a legend that has blossomed luxuriantly, whether in the prosaic details of the Book of Enoch and other apocryphal writings,³ or in the romantic poetry of modern times.⁴

The cherubs of the garden of Eden seem to have been thought of as formidable monsters, more like the sphinx of Egypt, the griffin of Phœnicia, or the compound bull of Assyria, than "the young-eyed cherubins," with wings attached to bodiless heads, which do duty for that "order of angels" in mediæval and modern art.⁵ They were not, however, as already remarked, an order of angels at all, properly speaking. What Prof. T. K. Cheyne writes of the seraphim (Polychrome Bible, Isaiah) is equally true of the

¹ Gen. vi. 2, 4; Job i. 6; xxxviii. 7. Cf. Ps. xxix. 1; lxxxix. 6; Daniel iii. 25.

² The word translated "God," *Elohim*, itself, sometimes appears to mean much the same as the "angels" of a later stage of theological development (Ps. viii. 5, and perhaps Exod. xv. 11 and Ps. xcvi. 9), as well as earthly rulers (Exod. xxii. 8; Ps. lxxxii. 1, 6), and the departed spirits of the mighty dead (1 Sam. xxviii. 13).

³ See Enoch, chap. vi. et seq.; *Text of the xii. Patriarchs*—Reuben, 5; Apoc. of Baruch lvi. 12 C. Jude 6-7; Tobit vi. 14.

⁴ Byron and Moore have both been fascinated by this subject, and written respectively "Heaven and Earth: a Mystery" and "The Loves of the Angels."

⁵ Rabbinic theology, it seems, "regarded the cherubim as youthful angels." (R. E. Ryle art. *Cherubim*, ap. Dr. Hastings's *Dictionary of the Bible*.)

former: "The *Seraphim* are mythical beings, adopted instinctively by Isaiah from the folk-lore of Judah, and quite distinct from *angels*, which are described as altogether human, and without wings." Like Vishnu upon the bird Garuda, Yahweh rides upon a cherub (Ps. xviii. 10) or sits upon (*not* between) the cherubim (Ps. lxxx. 1, etc.), a personification it may be, of the storm cloud.¹ In Ezekiel's second vision of the cherubim (chap. x), the sound of their wings is compared to "the voice of God Almighty when he speaketh" (verse 5), that is, to the noise of thunder (cf. Job xxxvii. 4-5).² Their identity with the living creatures seen by the river Chebar (chap. i.) is repeatedly declared by the prophet himself (x. 15, 20, 21); and in that former vision the same comparison is made (i. 24), and their appearance is associated with "a stormy wind" (i. 4) and ebullitions of lightning (i. 13).

The fourfold face—of a man, of a lion, of an ox, and of an eagle—seems to be a comparatively late development (Ezek. i. 10; cf. Rev. iv. 7); for in the second vision the face of a cherub, as if of well-known aspect, is substituted for that of an ox (Ezek. x. 14). The multitudinous eyes, like those of Argus (Ezek. x. 12; cf. Rev. iv. 6, 8), seem also to have been added to the original conception, symbolical doubtless of divine omniscience, as the other features were of wisdom and power. The prevalent assignment of knowledge to cherubs, and of love to seraphs, as their peculiar attribute, is due to an erroneous etymology and a false analogy. The meaning of the former word is obscure, but certainly has nothing to do with knowledge, though it may involve the notion of strength, of which the ox is taken as a type. Franz Delitzsch connects it with the idea of circular movement, which may explain the association of cherubs with wheels (Ezek. x. 9-13), and is, perhaps, itself derived from the action of the whirlwind or cyclone.

Mention of "the Cherubim" (Gen. iii. 24, R. V.) seems to imply a definite and determined number of those mystic sentinels of the gates of Paradise, whether two, as in the case of the custodians of the Ark (Exod. xxv. 18, etc.), or four, as in the vision of Ezekiel (Ezek. x. 10), corresponding, doubtless, to the four quarters of the sky.³ The "flaming sword which turned every way" is repre-

¹ It is at least curious to note in this connexion the meaning of the phrase in old English "to be in the cherubins," that is "to be all in the clouds," as we should say, "to have no substantial existence."

² "He thundereth with the voice of his majesty . . . God thundereth marvellously with his voice." Cf. Job. xl. 9; Ps. xviii. 13; xxix. 3-9; lxviii. 33; etc.

³ Cf. Zech. vi. 5: "The four winds [or spirits] of heaven, which go forth from standing before the Lord of all the earth."

sented, not as wielded by the winged angel familiar to sacred art,¹ but as gifted apparently with power of independent movement, in order to withstand all attempts at trespass. Its physical source may, perhaps, be found in a long sunbeam flashing out from some dark cloud, in which a Greek would have seen the piercing shaft of the sun-god, the βῆλος ἔχπευκός (*Iliad* i. 51) of Phœbus Apollo.² The cherub under whose charge the King of Tyre is said by Ezekiel (xxviii. 13 sq. Septuagint) to have been placed in the days of his glory when within "the garden of God," and who afterwards cast him out, is twice characterised by the epithet "overshadowing," suggestive of clouds that seem to brood over the earth.

So "the cherubim overshadowed or covered the ark" (Exod. xxxvii. 9 and 1 Kings viii. 7).³ The "cloud" that "filled the house of Yahweh" with glory (1 Kings viii. 11), the vehicle of the divine presence, is only a translation into prose of the cherubim on which he sits enthroned. In one psalm Yahweh rides upon a cherub (Ps. xviii. 10) and in another makes the clouds his chariot (Ps. civ. 3).⁴

Closely associated with the cherubim, the seraphim⁵ "personified the lightnings that surround the throne" of Yahweh.⁶ Though they are only once mentioned by name in the Bible (Isa. vi. 2, etc.), they seem to be referred to, at least in germ, as the "flaming fire" that Yahweh makes his ministers, even as he "maketh the clouds his chariot" (Ps. civ. 3-4). Cherubim and seraphim thus become his close attendants in the Court of Heaven, just as the voice of thunder proclaims his near approach, like the trumpet of an earthly monarch.⁷ Such personifying views of the powers and phenomena of nature gradually change into a belief in the control of beneficent forces by good angels, and the sim-

¹ Cf. Milton, *Paradise Lost*, l., 663:

"He spake: and, to confirm his words, out flew
Millions of flaming swords, drawn from the thighs
Of mighty Cherubim; the sudden blaze
Far round illumined Hell."

² The flashing sword "is probably intended to denote lightning" (Ryle, *op. cit.*).

³ "Cherubim of glory overshadowing the mercy-seat." (Heb. ix. 5).

⁴ Cf. Isa. xix. 1: "Yahweh rideth upon a swift cloud." So the poet Cowper sings:
"He plants his footsteps in the sea,
And rides upon the storm."

⁵ The same word, *Seraphim*, is translated in Numb. xxi. 8, etc., "fiery serpent." So also in Isa. xxx. 8. "To judge from their name, they [the *Seraphim*] were popularly imagined as serpents" (Cheyne). In Enoch x. 7 we read of "Gabriel, one of the holy angels, who is over Paradise and the serpents and the Cherubim"; upon which statement the Rev. R. H. Charles remarks in a note, "The serpents may be Seraphim."

⁶ Ryle, *op. cit.*

⁷ Exodus xix. 6. Cf. 2 Kings ix. 13.

ilar direction of tempests, and diseases, and other plagues by evil spirits or demons;¹ though physical calamities are frequently attributed to "the Angel of Yahweh" in the Old Testament.²

The seven spirits before the throne of God (Rev. i. 4; cf. Rev. v. 6 and Zech. iv. 10), of which we read in the Apocalypse of St. John, also called "the seven angels" (Rev. viii. 2) and coupled with "the seven stars" (Rev. iii. 1) are, at least in their original acceptation, the archangelic rulers of the seven known planets of antiquity,³ which presided over the days of the week in many lands and continue nominally to do so (with more or less modification) amongst almost all the nations of modern Europe. These planetary spirits had their representatives in the religious systems of ancient Egypt, Persia, and India. It was from Persia, in all probability, that Judaism borrowed the conception, giving names of its own⁴ to each of the sacred seven. Two only of these occur in the canonical Scriptures,—Michael and Gabriel. In the apocryphal Book of Tobit we read of "Raphael, one of the seven holy angels which present the prayers of the saints, and go in before the glory of the Holy One" (Tobit xii. 15).⁵ In Second Esdras (otherwise known as Fourth Ezra) we meet with the name Uriel or Jeremiel⁶ as that of "the angel that was sent to" the seer (iv. 1; v. 20; x. 28). Meaning "the Light (or Fire) of God," he may be identified perhaps with the "angel standing in the sun" of the Apocalypse (Rev. xix. 17. Cf. Milton, *Paradise Lost*, Book III., 613–622). In the Book of Enoch he is one of the four archangels, of whom mention is made (chapters ix., xx., and lxxiv.), whose place is sometimes taken by Ramiel (xx. 7 in the Greek) or Phannel (liv. 6). The names of the seven are usually given as Michael, Gabriel, Raphael, Uriel, Chamuel, Jophiel and Zadkiel; the last three, however, have never received recognition from either the Eastern

¹ "Thou dumb and deaf spirit, I command thee, come out of him." Mark ix. 25.

² "He arose and rebuked the winds and the sea." Matt. viii. 26.

³ "He stood over her, and rebuked the fever." Luke iv. 39.

⁴ "A spirit of infirmity." Luke xiii. 11.

⁵ "Whom Satan had bound." Luke xiii. 16.

⁶ Cf. Exod. xii. 23; 2 Sam. xxiv. 16; 2 Kings xix. 35.

⁷ Including the sun and moon, and of course excluding the earth.

⁸ Jewish tradition ascribes these names to Babylonish sources; and in this connexion it is interesting to note that there are now in the British Museum rude earthen bowls from the Euphrates valley bearing the names of Shaltiel, Malkiel, etc., along with those of the Jewish archangels Michael, Raphael, and Uriel, probably used as charms with healing draughts.

⁹ Cf. Rev. viii. 2–3: "I saw the seven angels which stand before God. . . And another angel came. . . and there was given unto him much incense, that he should add it unto the prayers of all the saints upon the golden altar."

¹⁰ "Jeremiel the archangel" (iv. 36, R. V.).

or Western branch of Christianity.¹ In the New Testament the word "archangel," which is not found at all in the Old Testament, occurs but twice, and then only in the singular number (1 Thess. iv. 16 and Jude 9). In the latter passage Michael is signalled as "the archangel." Gabriel is simply called "the man" in Daniel (viii. 16; ix. 21), and in St. Luke's Gospel he is "the angel Gabriel" (Luke i. 26) who stands "in the presence of God" (Luke i. 19).

Although the number seven occurs in Ezekiel (ix. 2) as that of a band of apparently angelic beings, and in Zechariah (iv. 10) as that of those "eyes of Yahweh" which "run to and fro through the whole earth,"² yet it is in the apocryphal Book of Tobit that we get the first distinct notice of seven Archangels,³ though they do not receive that title even there. That tale is saturated with Persian ideas,⁴ and we cannot avoid inferring a close connexion between those seven Princes of the celestial host and the seven Amesha-Spentas of Zoroastrianism. The conception of heavenly Watchers, acting as the eyes of the Almighty, is suggested in symbolical language by Zechariah (iv. 10) and finds definite expression in the Book of Daniel (iv. 13, 17, 23) and the apocryphal Enoch.⁵ The stellar origin of such intelligent beings is shown not only by phrases and allusions that concern Hebrew modes of

¹ *Michael*, the Angel of Judgment, means "Who is like God?"

Gabriel, the Angel of Mercy and of Good Tidings, means "Man of God."

Raphael, the Angel of Protection, means "God's Healer."

Uriel, the Angelic Interpreter, means "the Fire of God."

Chamuel, means "He who sees God."

Jophiel means "The Beauty of God."

Zadkiel means "The Righteousness of God."

Michael as the conqueror of the Dragon (Rev. xii. 7-8) is the lineal successor of Marduk (Bel Merodach), who in Assyrian mythology overcomes Tiamat, the monster of the deep; as the mediæval weigher of souls, he takes the place of the Egyptian Thoth, as may be seen by comparison of many a painting upon our old church walls with pictures of the Judgment scene in *The Book of the Dead*, and elsewhere.

² Cf. Milton's *Paradise Lost*, III., 648 sq.:

"The Arch-Angel Uriel, one of the Seven,
Who in God's presence, nearest to his throne,
Stand ready at command, and are his eyes
That run through all the Heavens, or down to the Earth
Bear his swift errands."

³ Tobit xii. 15: "I am Raphael, one of the seven holy angels, which present the prayers of the saints and go in before the glory of the Holy One."

⁴ Asmodeus seems to be derived from the Persian evil spirit Aeshma; the companionship of a dog may be compared with a similar feature in legends relating to the Persian protecting spirit Sraosha whose attributes are like those of Raphael. He is repeatedly called "the fiend-smiter" in the Avesta.

⁵ See chaps. x., c., etc. In the apocryphal "Revelation of Paul" we read of the sun, moon, and stars coming before God, and complaining of the wickedness of men, and from "all the angels . . . bring before Him the works of men, of each what he has done from morning even to evening, whether good or evil."

thought, but also by the Vedic hymns of ancient India where we read that Varuna's "spies proceed from heaven towards this world; with thousand eyes they overlook this earth"; by the Greek myth of Argus, and the beautiful prologue of the *Rudens* of Plautus, in which the star Arcturus tells how

"Jove, supreme o'er gods as o'er mankind
Hath us as Watchers o'er your race assign'd:
Scatter'd thro' different nations, among you,
We knowledge take of all that mortals do. . . .
Their names, by us recorded, meet the eyes
Of Jove, who learns what guilt for vengeance cries. . . .
But we on other tablets write the name
Of each whose worthy deeds such record claim."

Each nation was believed to have its own special angel to guard and govern it. In the Book of Daniel, Michael is termed "your prince" (x. 21) in reference to the prophet and his fellow-countrymen, on whose behalf it is further predicted that he shall interpose at a critical juncture: "Michael . . . the great prince which standeth for the children of the people" (xii. 1). One angel is spoken of as "the prince of the Kingdom of Persia," and another as "the prince of Greece" (x. 20). In the Book of Enoch (chaps. lxxxix—xc) the Seventy Shepherds, who are rebuked and punished for neglecting their charge, would seem to be the angelic watchers who presided over and represented¹ the (supposed) seventy nations of the world.²

The doctrine of guardian angels, not only of nations and churches, but also of individual souls, is not so much taught as taken for granted in the New Testament (e. g., Heb. i. 14), being based upon such passages of the older Scriptures as Ps. xxxiv. 7; xci. 11; Dan. iii. 28. That each human being is under the care of a special tutelary spirit is more than a mere "pious opinion" in the Church of Rome, and seems distinctly sanctioned by New Testament authority (Matt. xviii. 10). We are reminded by this Jewish, or at any rate early Christian, belief of the *Genius* of the old Roman religion and the *γενέθλιος δαίμων* of Pindar. The twin-born spirit

¹ So seven angels, in Rev. ii. and iii., represent the seven churches of Asia.

² See Lightfoot, *Hor. Hebr.* John vii. 37 and Targ. Ps. Jonath. Genesis xi. 7, 8. Just seventy nations are mentioned in Genesis x. as descended from Noah; and according to the Septuagint (Deut. xxxii. 8), the bounds of the nations were appointed "according to the number of the angels of God" who were to preside over them. Cf. the Book of Jubilees xv. 23 (as translated by Schodde, *Bibliotheca Sacra*, July, 1886): "There are many nations and many peoples, and all are his [i. e., the Lord's], and over all has he appointed spirits to rule, that they should lead them astray from him, but over Israel he did not appoint any ruler, neither an angel nor a spirit, but he alone is their ruler, and he preserves them." Clement of Alexandria (*Strom.* vi. 17) says that "regiments of angels are distributed over nations and cities"; but he is more doubtful as to whether "some are assigned to individuals."

was popularly regarded (like the astral body of occult theosophy) as possessing the form and features of the person to whom he belonged (Acts xxii. 15), or rather who belonged to him (Acts xxvii. 23). In the *Pastor* of Hermas we find a further development of the doctrine in the conception of a bad angel as well as a good one attached to every individual. "There are two angels," he writes (ii. 6. 2), "with a man,—one of righteousness and the other of iniquity," and he gives directions how to distinguish between the voices of the two, as heard within the heart. Such language is more than metaphorical when first employed. The restraining voice of the goddess Athena in Homer is not a mere personification of the man's own prudence; but in the Fable of the Choice of Heracles, as narrated by Prodicus, the advocates of virtue and of vice are as manifestly unreal as the allegorical characters of a "morality" or a masque. The nature of angels comes in course of time to be divested of all those corporeal attributes which connected it more or less closely with humanity in the artless narratives of the past.¹ Indeed, that nature is so etherialised and refined by the more spiritually minded among devout believers, that there is little left upon which the imagination can work with any effect. As with the idea of God or immortality under similar conditions, what is gained in grandeur is lost in vivid apprehension. The angels of Philo are hardly to be distinguished from abstract qualities clothed in the language of *Prosopopæia*.

Certain mysterious, if not altogether incomprehensible, faculties are assigned to the semi-human denizens of the sky even in the earliest Biblical accounts of their appearance among men. Their power of being visible or invisible at will is implied in the story of Balaam and the angel who opposed his onward progress (Numb. xxii. 31), and their independence of ordinary means of locomotion is shown in that of Manoa and his wife (Judges xiii. 20). The absence of palpable flesh and bones in the spiritual organisation is plainly declared in the New Testament (Luke xxiv. 39; cf. 1 Cor. xv. 50), and in virtue of their immortality they are represented as having no concern with those sexual relations upon which the perpetuity of life upon our planet depends (Matt. xxii. 30). This view of the angelic nature is, however, inconsistent with Jude's ascription of the Fall of the Angels to carnal lust, as is evident from the context (Jude 6, 7,) of the passage. The earliest commentators had no doubt that the words referred to that intercourse between the sons of God and the daughters of men, to which

¹ Cf. Gen. xviii. 8; xix. 3; xxxii. 24-30; Psalm lxxviii. 25 ("Angels' food," A. V.).

is ascribed the depravity of the age before the flood (Gen. vi. 2 sq.); and this is the unanimous verdict of modern scholars. In Apocryphal literature ("Book of Enoch," etc.) the original corruption of the human race is attributed to this Fall of the Angels and its results in a mixed progeny of demons, rather than to a Fall of Man, directly, in the persons of Adam and Eve.¹

Other and less sensual motives were sometimes assigned as the cause of the defection of the Angels, ending in a forced expulsion from "their proper habitation" (Jude 6), rather than a voluntary withdrawal.² Pride or presumption was the origin of the Devil's condemnation according to the second century (?) writer of 1 Timothy (iii. 6);³ and our own Milton, in his grand picture of "War in Heaven" and its disastrous issue for Satan and his hosts, has attributed the source of the revolt to "envy against the Son of God."⁴ His account of the celestial mutiny, which the average Englishman supposes to be derived, at least in its general outlines, from the Bible, has in truth more points of connexion with Pagan mythology than with the Sacred Scriptures of Jew or Christian. The world-wide myth of the defeat of the Dragon of Darkness by the Powers of Light (familiar to Judaism from the Babylonian version)⁵ furnishes the writer of the Apocalypse (Rev. xii. 7-10) with the form of phraseology in which he predicts the future tri-

¹ In the Apocalypse of Baruch, it is said that by Adam's transgression death and other evils came into the world, but the doctrine of original sin is absent (liv. 15). Indeed he writes: "Adam was the cause of guilt to his own soul only; but we, each of us, are the Adam to our own souls (liv. 19). In 4th Ezra (2d Esdras) the orthodox doctrine is taught (iii. 21-22; vii. 48 [118]) so far at least as hereditary corruption is concerned. But, as R. H. Charles remarks on Apocrypha of Baruch liv. 19, "the evil impulse does not constitute guilt or sin unless man obeys it." Cf. Apoc. of Baruch xlviii. 42.

² ἀπολιπόντας τὸ ἴδιον οἰκητήριον (Jude 6).

³ Cf. Shakespeare, *Henry VIII.*, Act III, Scene 2:

"Cromwell, I charge thee, fling away ambition:
By that sin fell the angels," etc.

⁴ *Paradise Lost*, Book V., 662. Milton's portrait of the "Archangel ruined" has no real parallel in the Biblical passages which have in part suggested it. Isaiah's magnificent apostrophe to Babylon (xiv. 12 sq.) has, of course, nothing to do with the "Lucifer" of mediæval imagination, except through patristic misinterpretation. In the pseudo-Ignatian epistle to the Philipians (ch. xi.) the Fall of Satan is attributed to sensuality as well as pride. A double apostasy of the angels is assumed by some divines, one, before the creation of Adam and Eve manifested in open rebellion, the other due to secret desertion of their high estate for union with "the daughters of men." According to Tatian (*Apol.* 7) the angel "who was more subtle than the rest" became a demon, and was excluded from fellowship with God, in consequence of the part he took in the Fall of our first parents. Cyprian (*De dono patient.*, p. 218) assigns the interval between the creation of man and his temptation as the time of the Devil's apostasy and attributes its cause to envy against the former as made after the image of God. Cf. Wisdom ii. 24: "by the envy of the devil," etc., Irenæus *Adv. hæc.* iv. 40, 3, and Gregory of Nyssa, *Orat. catech.* c. 6. Lactantius (*Inst.* ii. 8) refers the Fall of Satan to envy of the Logos, a spirit created by God like unto himself.

⁵ Marduk (Merodach or Bel) conquers the monster Tiamat, as Michael subdues "the great dragon . . . called the Devil" (Rev. xii. 9). Cf. Isa. xxvii. 1.

umph of "the kingdom of our God and the authority of his Christ." Isaiah employs somewhat similar imagery to foreshadow, as it were, the downfall of the King of Babylon (Isa. xiv. 12-15); but the prototype is here no monster of the night,¹ but the brilliant planet of the dawn, which

"dropt from the zenith like a falling star."

—*Paradise Lost*, Book I., 744.

The physical phenomenon of a meteoric shower may indeed have first suggested a Fall of Angels from Heaven, some Satan "with his rebellious rout," like those Titans or Giants who in their audacity would have dethroned the Father of Gods and Men. (Cf. Isa. xxiv. 21; xxxiv. 4; Luke x. 18; Rev. ix. 1.)

Besides, passages to which allusion has been already made, a Fall of the Angels or their consequent punishment receives canonical recognition in Matt. xxv. 41 ("the eternal fire prepared for the Devil and his angels");² 1 Cor. vi. 3 ("we shall judge angels"); 2 Pet. ii. 4 ("God spared not angels when they sinned, but cast them down to Tartarus, and committed them to pits of darkness to be reserved unto judgment");³ and Rev. xx. 10 ("the Devil that deceived them was cast into the lake of fire and brimstone").

The Devil,⁴ Satan,⁵ Beelzebub,⁶ "the prince of the demons" (Matt. xii. 24), Belial⁷ (2 Cor. vi. 15), Abaddon or Apollyon, i. e., "the Destroyer" (Rev. ix. 11), the Dragon, the old Serpent (Rev. xx. 2), are all names applied in the New Testament apparently to one and the same enemy of all good, "the god of this world" (2 Cor. iv. 4; cf. John xii. 31), "the prince of the power of the air" (Eph. ii. 2; cf. Eph. vi. 12, R. V.). This latter designation

¹ So, according to the common interpretation, the King of Tyre is compared to a cherub for brightness (Ezek. xxviii. 14-17).

² Cf. Enoch, liv. 5, 6 and x. 13.

³ Cf. Enoch, vi.-xi.

⁴ ὁ Διόβολος, "the Slanderer," or perhaps "Accuser" (Latin *criminator*, *Lact. Inst.*, ii. 9), never used in the plural number; his angels are demons, not devils. In John vi. 70 the term is applied to a human being, like "Satan" elsewhere.

⁵ Satan, "the Adversary," is not always used as a proper name (Matt. xvi. 23, cf. 2 Sam. xiv. 24). Even as such it occurs in the plural in Enoch xl. 7; as also in the Korān, etc.

⁶ Identical with the god Ekron, Baal-zebub (2 Kings i. 2 sq.) meaning "Lord of flies," or "Lord of the (heavenly) dwelling" if the correct form of the name is preserved in the Greek of the New Testament as Beelzebub (Βεελζεβούβ), instead of being a contemptuous play upon the word, signifying "Lord of the dunghill." "The conception of Satan, the adversary, was of gradual and largely native growth in the Jewish mind, though not uninfluenced by impressive dualistic ideas. He took more definite character in the later ages, and with his kindred demons was shaped, in part, out of the rejected gods of heathendom and the spirits that dwelt in the wastes" (John Leyland).

⁷ "Worthlessness." In the Old Testament the word is not a personal name (Deut. xiii. 13, etc.).

was in accordance with the belief that storms and pestilences were brewed by infernal spirits, and that the atmosphere was filled with them in innumerable multitudes. The notion has survived to our own day that "lightning and tempest" may be dispersed by the ringing of church bells, even where it has ceased to be regarded as a means of driving away demons that caused them. It was with this view among others¹ that they were and still are solemnly blessed or baptised, as is done with elaborate ritual in the Roman Church. The all-pervading presence of evil spirits, of one kind or another, in the air around is a constant article of faith among the Jews, and in the East generally.² They are believed to haunt solitary places (cf. Isa. xxxiv. 14 and Matt. xii. 43), and Sepulchres (cf. Matt. viii. 28), but also to frequent the habitations of men and women and crowded assemblies. "The *chalebi*, the old traditional head-dress of the Jewish women, seems to have been invented for the express purpose of keeping off the *Schedim*, who sit on the hair of women whose heads are uncovered" (F. W. Farrar, *Life of Christ*, Ex-cursus vii). This cannot fail to remind us of St. Paul's exhortation to the female members of the Church of Corinth with reference to their apparel (1 Cor. xi. 10).³

The subject of demoniacal possession is one which meets us more or less distinctly throughout all periods of the world's history. It was a theory to account for certain forms of madness and other diseases, by no means peculiar to Jewish modes of thought, and one that is still rife in Oriental lands. It differed from the ordinary assaults of evil spirits, which might entail lingering and painful maladies,⁴ in its hold over the mind as well as the body. The

¹ The object of the "passing" bell was to relieve the soul of the sick person from the assaults of evil spirits during its passage from this world to the next.

² The Jews divide them into two main classes, one wholly supernatural, fallen angels under their leader Satan or Sammael ("the poison of God"), and the other half-human, of which there are again two kinds: (1) the *Lilin* ("belonging to the night"), sprung from Adam and Lilith (see Isa. xxxiv. 14, R. V. margin) who reigns over them, or other female spirits, and (2) *Schedim* ("violent"), the progeny of Eve and certain male spirits, whose king is Asmedai (the Asmodæus of the Book of Tobit). Akin to them are the *Jinn* (plural of *Jinnæ*, the *genie* of the *Arabian Nights*) of the Arabs, though there are both good and bad beings amongst them. See Sale, *Introduction to Koran*, Sec. iv.

³ Tertullian explains the phrase "because of the angels" as suggested by those apostates who, captivated by women's charms, "fell from God and heaven." "So perilous a face then," he continues, "ought to be shaded, which has cast stumbling-stones even so far as heaven: that, when standing in the presence of God, at whose bar it stands accused of the driving of the angels from their native confines, it may blush before the other angels as well" (*De virg.* vol. 7), and cf. *Cont. Marc.* v. 6: "If he [St. Paul] means the fallen angels of the Creator, there is great propriety in his meaning. It is right that that face which was a snare to them should wear some mark of a humble guise and obscured beauty."

⁴ Cf. Job ii. 7; Luke xiii. 16; iv. 39; 2 Cor. xii. 7.

demons which thus "possessed" human beings could be expelled, as it was thought, by the adoption of suitable means, or transferred to other persons or even brutes.¹ Exorcism passed from Judaism into the Christian Church. A special order of "exorcists" still exists in Roman Catholicism; evil spirits are driven out of candidates for baptism as part of the regular ritual, as well as out of the oil and water which receive solemn consecration for religious use, and more striking exhibitions of priestly power are not altogether unknown in cases of extraordinary possession which appear to present themselves from time to time even in European countries. Doctrines of demoniacal obsession and possession readily lent themselves to expansion in connexion with sorcery and witchcraft, so that the mediæval Devil, with all his ridiculous grotesqueness and gullibility,² was, nevertheless, invested with such terrible powers over nature and mankind as created a veritable nightmare throughout Christendom from the middle of the fifteenth century onwards.

As the angels of light were spoken of in military language as arranged in hosts (Ps. ciii. 21, etc.), camps (Gen. xxxii. 1-2; Ps. xxxiv. 7), and legions (Matt. xxvi. 53), so the angels of darkness are referred to in terms of similar organisation (Mark v. 9). Their ranks of comparative dignity are to some extent parallel with those of the celestial hierarchy. On the one side we read of "principalities" and "powers," "the world-rulers of this darkness," "the spiritual hosts of wickedness in the heavenly places"³ (Eph. vi. 12; cf. Rom. viii. 38 and Col. ii. 15), and, on the other side, of angelic "thrones," "dominions," "principalities," and "powers" (Col. i. 16; cf. Eph. i. 21), all subordinate to the Son of God. These celestial orders received elaborate exposition at the hands of the author who wrote under the name of Dionysius the Areopagite (fifth century A. D.), and are arranged by him in three triple groups, thus :

¹ Cf. Matt. viii. 31-32.

² The ease with which the stupid Devil of folk-lore is imposed upon and cheated is a feature in his character not altogether accounted for by inheritance from popular traditions of trolls and giants, for it is not confined to those Teutonic countries where such stories were current. It may be considered as, in some measure at least, the vulgar reflexion of that theory of man's redemption which was the prevailing one before Anselm wrote his great work *Cur Deus Homo*—viz., that the Devil was outwitted and deceived in accepting the person of Christ as his prey, in lieu of humanity at large, under the impression that he was a mere man, and could be held fast by him in the bonds of death.

³ This expression (*ἐν τοῖς ἐπουρανίοις*) may mean the regions of the middle air assigned by Jewish tradition to the powers of evil; though it must be remembered that in the Book of Job Satan presents himself before Yahweh among "the sons of God," and receives a mandate directly from him (cf. 1 Kings xxii. 1 sq.).

Counsellors	{ Seraphim Cherubim Thrones
Governors	{ Dominations Virtues Powers
Ministers	{ Principalities Archangels Angels

In the *Secrets of Enoch* (30 B. C.?) ten orders of angels throng the steps of the throne of God (chap. 20). A modified worship of angels, along with that of saints and martyrs, attained considerable prominence in the fourth century of the Christian era (a sort of recrudescence of polytheism, led up to by the doctrine of the Trinity, and the veneration of the Virgin Mary),¹ and has continued to do so in the Roman and Eastern Churches. Its rise seems to be alluded to in Coloss. ii. 18, as well as in Rev. xix. 10.

Angels, as represented in sacred art,² have features which we can trace in the *Erôs* or *Hymên* of the Greeks, the *Victories*, *Cupids*, and *Genii* of the Romans, and more remotely in the winged symbolical figures of Egypt, Assyria, and Persia. In like manner the mediæval portraits of the Devil and his crew are derived in some measure from *Pan* and the *Satyrs*, the *Lemures* and *Larœe*, the *Pythons* and *Hydras* of classical antiquity, as well as from Teutonic prototypes of woodland monsters; though Chaldea may have furnished the original idea of the Dragon which has been handed down to us in so many varying shapes, in *Tiamat*, the Monster of the Deep, whose compound effigy we may still see on a well-known bas-relief in the British Museum.³ But to match the gruesome imagination which once covered the walls and gates of Christian churches and cemeteries with realistic presentments of foul fiends torturing the damned, we must go as far as China, so true is it that men at the same stage of culture, however far removed from one another in time and space, are apt to develop almost identical conceptions without any means of actual communication between them.

¹ The term "Mariolatry" is incorrect. It is homage (*δουλεία*), not the highest worship (*λατρεία*), which is paid by Roman Catholics to the Blessed Virgin, as to other saints or angels, though to her in a preëminent degree (*Hyperdulia*.)

² They do not make their appearance till the beginning of the fifth century A. D., in the mosaics of Ravenna and Monreale.

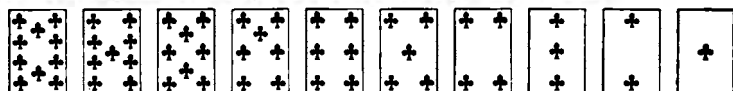
³ It is not till the eleventh century that sculptured figures of the Devil and his imps present themselves in Christian architecture.

MIND-READING IN THE NURSERY.

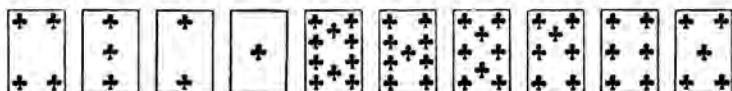
BY THE EDITOR.

A GOOD method of keeping up the interest of boys and girls in mathematics is to explain to them easy arithmetical tricks which they can readily perform for themselves. A very simple card-trick, which appears quite wonderful to the uninitiated, is as follows:

Ten cards from ace to ten are laid in order in a row, beginning at the right and with their faces down. The performer of the trick announces that he will tell the number of cards which may be moved by one of the company from the right to the left and in addition pick up the card bearing this number. As we wish to explain the trick, we will play with the faces of the cards upwards; and the original order (when uncovered) will be this:

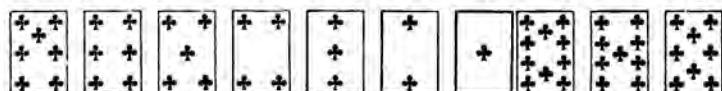


The magician then leaves the room, and some one who wishes to test the extraordinary accomplishment of his young friend transfers a few cards in their regular order from the right side to the left. Let four cards be moved, then the new order will be this:



You will at once see that the four-spot has become the first card of the row. The first card tells the number of the cards moved. Accordingly the young performer lifts up the first card, and seeing that it is a four-spot declares, "Four cards have been moved." The art of the magician consists in giving the impression that he knows the card before he picks it up, and that the discovery of the position of the four-spot is only an additional proof of his omniscience. He goes out again, knowing beforehand that

whatever number of cards may be moved from the right side to the left, the card which bears that number will always be found in the last position of the ten-spot, which at present is the next place after the four cards transposed in the first move; i. e., in the fifth place. If no card is moved, the ten-spot will remain in its place and will be picked up as a sign that all ten cards, or none at all, which means the same thing, have been moved. But suppose that three cards have been moved, then the three will be in the fifth place:



The place of the card showing the number of cards moved will always be "one plus the total number of moves," and it is a matter of course that only units count.

After the second move the card to be taken up will be $1 + 4 + 3 = 8$, and supposing that five cards are now moved the five will appear in the eighth place. Thus we may continue, and the uninitiated will wonder what trick is at the bottom of the performance, which is nothing but a very simple example in addition.

Another trick, which may be called "mind-reading," is also the work of simple arithmetic.

Suppose you request a person to think of any number from 1 to 15 and to point out to you the rows in which his number occurs in the following scheme:

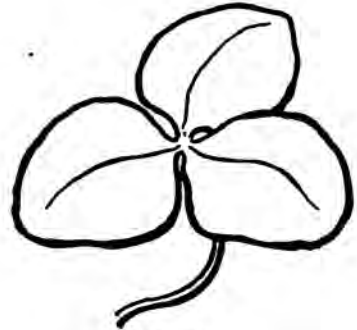
1	3	5	7	9	11	13	15
2	3	6	7	10	11	14	15
4	5	6	7	12	13	14	15
8	9	10	11	12	13	14	15

You will at once know the number which the person has in mind when he tells you in which horizontal rows it occurs, for all you have to do is to add together the first numbers of these rows. A close inspection will tell you that 3 occurs in the two lines beginning with 1 and 2; the number 5 in the lines beginning with 1 and 4, etc., and 15 in all four lines beginning with 1, 2, 4 and 8.

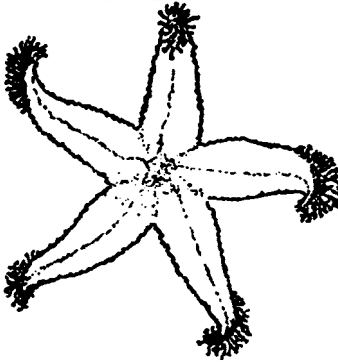
If we now replace the numbers with pictures, the arithmetical clue will be concealed, and the audience will be thoroughly mystified. In order to assist the little magician, whose memory is not as yet well trained, we propose to replace the numbers with pictures which will readily suggest the numbers that they represent. This may be done by representing the four numbers 1, 2, 4, and 8 by wheels; 1 by a wheelbarrow, which has one wheel; 2 by a bicycle or a cannon, which has two wheels; 4 by a wagon, which has four



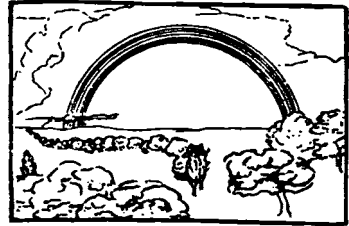
WHEELBARROW.



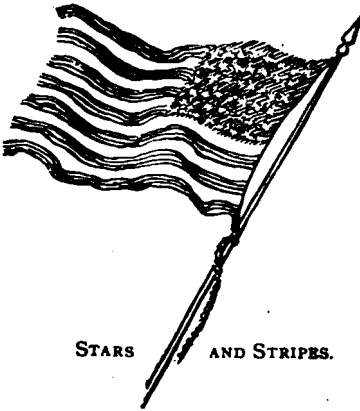
CLOVER.



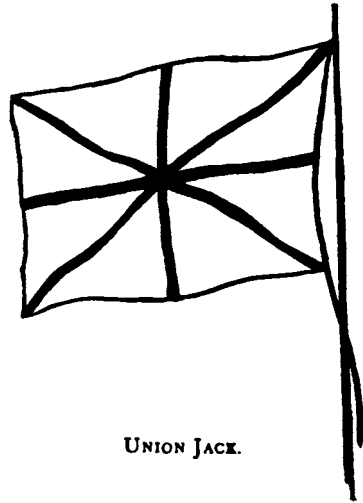
STARFISH.



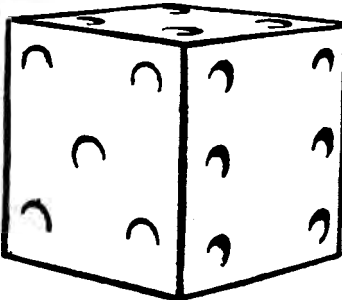
RAINBOW.



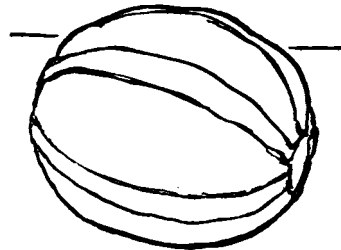
STARS
AND STRIPES.



UNION JACK.



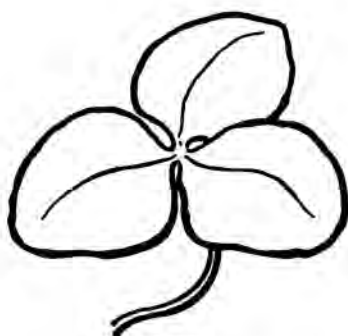
DIE.



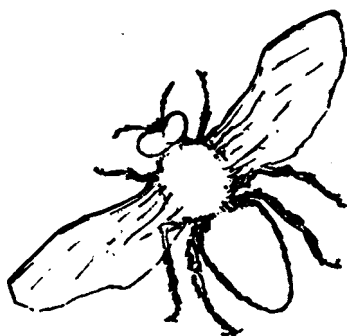
FOOTBALL.



BICYCLE.



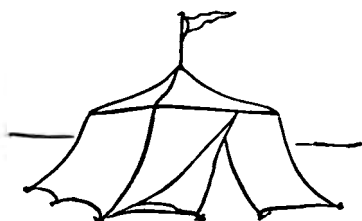
CLOVER.



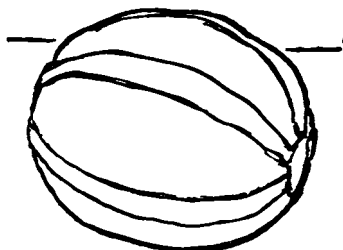
BEE.



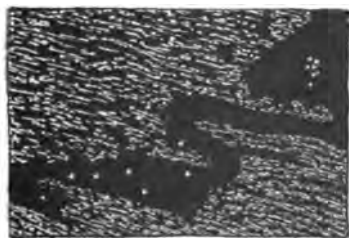
RAINBOW.



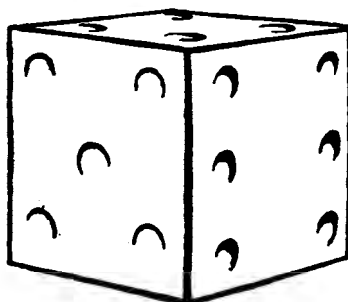
TENT.



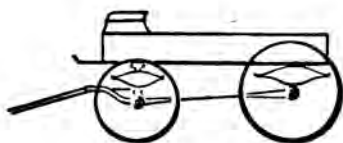
FOOTBALL.



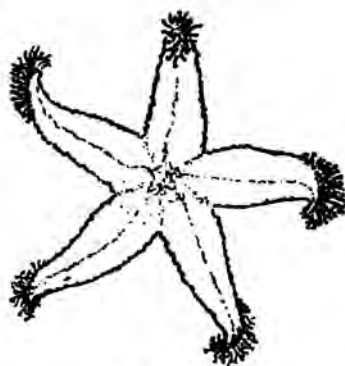
CONSTELLATIONS.



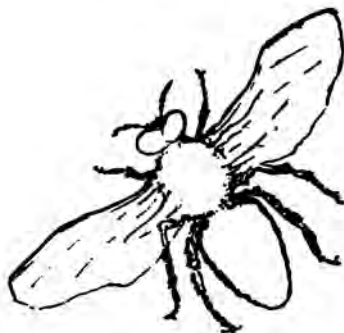
DIE.



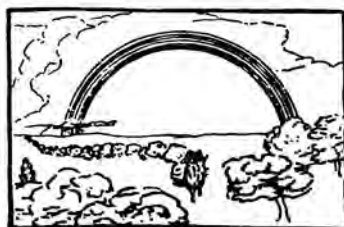
WAGON.



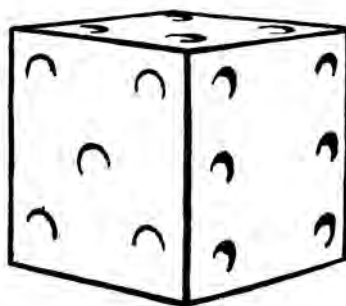
STARFISH.



BEE.



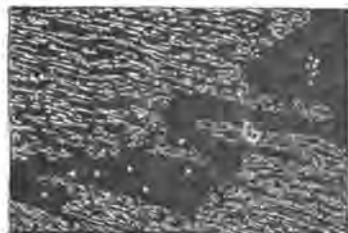
RAINBOW.



DIE.



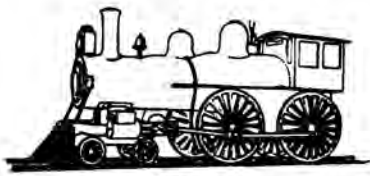
STARS AND STRIPES.



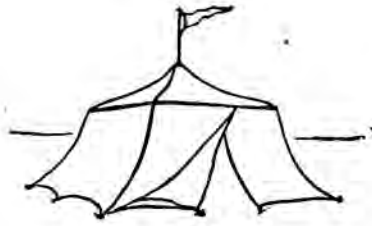
CONSTELLATIONS.



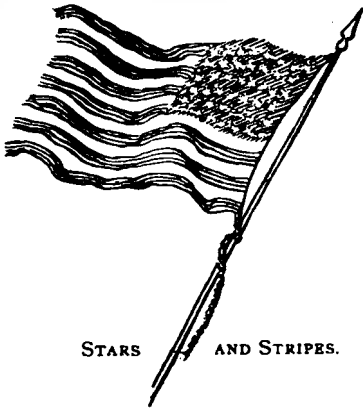
WATCH.



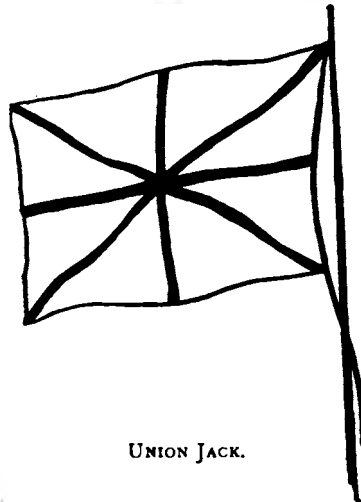
ENGINE.



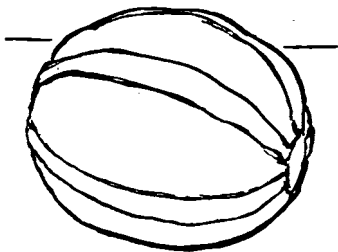
TENT.



STARS AND STRIPES.



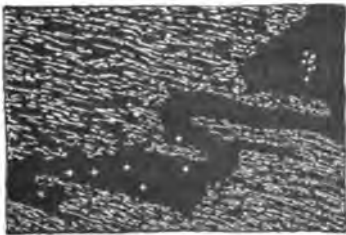
UNION JACK.



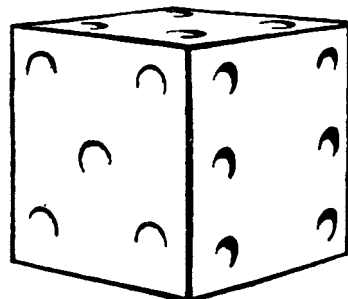
FOOTBALL.



WATCH.



CONSTELLATIONS.



DIE.

wheels; and 8 by an engine which has eight wheels. Another method of representing these four numbers would be by feet: 1 as a top or as a stork standing on one foot; 2 as a man; 4 as any quadruped; and 8 as a spider or an octopus.

The other figures may be represented by other objects suggesting the several numbers. Clover may represent 3; a hand or a starfish, 5; an insect having six feet, 6; a rainbow, 7; the Union Jack, which can be made with 9 strokes, or a school-house, will represent 9 (nine o'clock being the hour for beginning the recitations); the decalogue of Moses, 10; or if this be too weighty a subject or too difficult to draw, take a tent, the sound of whose name will remind you of ten; 11 would be well represented by a football; 12 by the meridian sun, or by a clock or watch whose small hand points to twelve; the American flag with its thirteen stripes will represent 13; another representation of 13 would be Christ with the twelve Apostles, or a cross: for the idea that 13 is an unlucky number originated through the thought of the crucifixion, Christ having been the thirteenth at the Last Supper; fourteen may be the crown of Louis XIV., or his coat-of-arms, or a valentine, since St. Valentine's day falls on the fourteenth of February, or the two constellations, the Dipper and the Pleiades, each one consisting of seven brilliant stars visible to the naked eye; while 15, finally, may be represented by a die showing the faces 4, 5, and 6.

All these things can be easily drawn by children and should be so arranged on four cards as to reproduce the number-arrangement given above. Each card will correspond to a row, and in our illustrations the first number of each row is represented by the picture in the upper left-hand corner. It is not necessary to preserve the same order, if our youngster only remembers the place of the pictures which represent the numbers that must be added. Having drawn his four cards, he presents them to some one with the request that he think of some of the objects and hand him back those cards on which this object appears. Each card that is handed back represents a number, and their sum indicates the object thought of. Thus if a person thinks of the flag (number 13), he will hand back the cards bearing the pictures wheelbarrow, waggon, and engine, as being those on which the flag occurs, representing the numbers 1, 4, and 8, the sum of which makes 13.

The underlying theory of the trick is of course old and pretty well known, but the idea of expressing it in pictures that represent the numbers and that can be easily drawn by the children themselves, is new and may be welcome to educators and parents.

MISCELLANEOUS.

THE PRINCIPLE OF "LIKE CURES LIKE" IN GREEK LEGEND.

Homœopathy, or the doctrine of "like cures like" (*Similia similibus curantur*), is of very ancient origin and was based originally on religious considerations. The idea is that of "an eye for an eye and a tooth for a tooth"; blood-guilt could be propitiated, or cured, only by the shedding of blood, and reparation had to be made in kind.

The extension of this principle to the art of healing appears first in classical antiquity in the Greek epic, where we are informed that a warrior by the name of Telephus, one of the allies that came to Troy, was wounded by the spear of Achilles. The wound did not close, and the oracle was consulted. The reply was that the spear which had caused the wound alone could cure it; whereupon the patient, after considerable effort, procured some shavings from the spear-head of Achilles, and applying them to the wound healed it.

The idea has been frequently represented in Greek art, and we here reproduce an Etruscan mirror depicting the event. The background of the scene is ornamented with a solar disc, which is frequently used as an emblem of the restoration of health. This idea is even received in the Bible, where in Malachi iv. 2 we read: "The Sun of righteousness shall arise with healing in his wings." P. C



ORNAMENT ON AN ETRUSCAN MIRROR.¹
The Cure of Telephus.

CUI BONO?

Aye, to what purpose is this strain of thought,
Eager uplifting of the soul on high,
Keen piercing utterance of a spirit-cry

¹ Reproduced from Springer's *Handbuch*, Vol. I., p. 107.

For knowledge, with a loftier wisdom fraught?
 Is it all vain, as some will surely say,
 Speaking hours squandered by a mind possessed,
 Showing powers shattered on a fruitless quest,
 While the dark breaks not into dawn of day?

"There is a budding morrow in midnight,"
 Sang silken-tongued a poet 'mid grey youth;
 So, in Seclusion's hour of scantiest light,
 May flicker faint, for all the scholar's ruth,
 Some secret flame that shall by radiance bright
 Flood with calm glory his long road to Truth.

LONDON, England

ELLIS THURTELL.

BOOK REVIEWS.

THE WORLD AND THE INDIVIDUAL. Gifford Lectures, delivered before the University of Aberdeen. First Series, the Four Historical Conceptions of Being. By *Josiah Royce*, Ph. D., Professor of the History of Philosophy in Harvard University. New York and London: The Macmillan Company. 1900. Pages, xvi, 588.

A decided *penchant* for metaphysics will be necessary to enjoy Prof. Royce's work. It is the boom of the heavy siege-guns of philosophy that reverberate through his pages, not the rippling crack of its light field-artillery. And this is precisely as Prof. Royce would have it. He terms his method "thoroughgoing philosophical inquiry," as opposed to what we might call intelligible superficial inquiry, declares that it is useless "to defend its methods to people who by nature or by training are opposed to it," and addresses himself to "the still open-hearted inquirers" whom God in his grace has specially endowed with philosophical comprehension.

The essays of the volume are Gifford Lectures, and the first series only of the two to be delivered. "Lord Gifford's will," says Professor Royce, "calls upon his lecturers for a serious treatment of some aspect of the problems of Natural Religion. These problems themselves are of the most fundamental sort; and in this first series I have not seen my way clear to attempting anything less than a philosophical inquiry into first principles."

In this philosophical inquiry he has remained true to the position which he originally assumed in his thinking, "that the very conditions which make finite error possible concerning objective truth can be consistently expressed only by means of an idealistic theory of the Absolute." Since that time, he has struggled to come to clearness as to "the relations of Idealism to the special problems of human life and destiny". "Thought" was the term which he first hit upon as the best name for the final unity of the Absolute,—Thought as inclusive of Will and of Experience. But these latter aspects of the Absolute Life were not sufficiently emphasised by him formerly, a task which he now proposes to do in the present work, which is "a deliberate effort to bring into synthesis, more fully than before, the relations of Knowledge and of Will in our conception of God."

It is also to be noted that whereas formerly in Prof. Royce's system the term Thought "as applied to the Absolute, referred not only to finite processes of thinking, but also, and expressly, to the inclusive Whole of Insight, in which both truth and value are attained, not as objects beyond Thought's ideas, but as appreciated and immanent fulfillment or expression of all the purposes of finite Thought," now

he uses the term Thought "as a name for the process by which we define or describe objects viewed as *beyond* or as *other than* the process whereby they are defined or described." The aim which Prof. Royce sets himself will now be clear. The book contains ten chapters, of which the titles are as follows: 1. Introduction: The Religious Problems and the Theory of Being; 2. Realism and Mysticism in the History of Thought; 3. The Independent Beings: A Critical Examination of Realism; 4. The Unity of Being, and the Mysterious Interpretation; 5. The Outcome of Mysticism, and the World of Modern Critical Rationalism; 6. Validity and Experience; 7. The Internal and External Meaning of Ideas; 8. The Fourth Conception of Being; 9. Universality and Unity; 10. Individuality and Freedom.

μ.

The May issue of *The Babelot* is *A Song to David*, by Christopher Smart, edited by Prof. Charles F. Richardson, and supplemented by a portrait of the poet from an edition of 1791. Robert Browning is responsible for the resuscitation of Smart's poem which, as the editor of the present edition informs us, "remained considerably more than a century a mere title in English bibliography." In *the Shadows*, a poem in sonnets by David Gray, a young Scotch poet, who was born in 1838 and died in 1861, "not knowing what it was to live," forms the June issue of *The Babelot*. It is the production of an invalid, a genuine poem of pain, "never widely read," according to the confession of the editor, "and still less likely to be read in the future." Nevertheless, the verses are musical and many of them thoughtful. The *Field Play*, a story of the cruelty and bitterness of certain phases of English peasant life, by Richard Jeffries, is the July issue. (Five cents each.)

The Baker & Taylor Company of New York have issued a new edition of the Swami Vivekānanda's *Vedānta Philosophy*. It treats of the Rāja Yoga, or the method of attaining the knowledge which is the essence of religious bliss. One of the main exercises, for example, is the drawing in of a column of air through *Idā*, the left nostril, sending at the same time a nerve-current down the spinal column and causing the current to bump violently upon the solar plexus, which is the basic lotus and also incidentally the place where Fitzsimmons smote the renowned Yogi Corbett; all of which culminates in the rising of *Kundalinī*, which rising is the beginning of knowledge. We refrain from epitomising the remaining stages for attaining true enlightenment. It only remains to mention that we learn for the first time from this book that love is like a triangle; why it is not like a quadrangle, or a pentagon, or an icosahedron, which would be far more Platonic, the author has not vouchsafed to say. (Pages, 381.)

The Rev. Dr. Frederic Rowland Marvin has collected under the title, *Last Words of Distinguished Men and Women*, much curious and interesting matter relating to the last hours of the great men and women of the world. The matter is alphabetically arranged and accompanied by a comprehensive and carefully prepared index. The mechanical execution of the book leaves little to be desired, the work having been printed by the De Vinne Press of New York on specially manufactured paper, and from large and clear type. The edition is limited to 500 copies. The publishers are C. A. Brewster & Co., of Troy, N. Y. (Price, \$2.00.)

The sixth volume to be published by Fords, Howard, & Hulbert, of New York, in their *Nuggets* series, is a collection of passages gathered from five of the most celebrated authors of the post-Elizabethan period: Dr. Thomas Fuller, church

historian, wit, and moralist, said by Coleridge to have been incomparably the most sensible and least prejudiced of the many great men of his age; Bishop Joseph Hall, the famous divine; John Selden, lawyer and parliamentarian; George Herbert, scholar, preacher, and poet; and lastly Izaak Walton, philosopher and fisherman. From the antique flavor and oddity of the utterances collected in the volume, the little book bears the title of *Quaint Nuggets*. A portrait of Fuller adorns the title-page. The compiler is Eveline Warner Brainerd. (Pages, 136. Price, 45c.)

The first volume of the *Studi Glottologici Italiani*, edited by Giacomo de Gregorio, professor of comparative history of the classical and Neo-Latin tongues in the University of Palermo, and issued on the occasion of the twelfth International Congress of Orientalists, contains articles by Prof. De Gregorio on the etymology and lexicography of the Romance languages, with special reference to the Sicilian dialects, and also contributions by R. Sabbadini, M. La Via, and M. Niedermann on cognate subjects. (Price, L. 10. Turin: Ermanno Loescher.)

HOMO ALALUS.

Rude forefather of Nature's Masterpiece,
Progenitor of man, tho' not yet man,
How oft, in fancy rapt, through forests wild
I've strode beside thee in the noble chase,
Or at thy savage meal unbidden sat,
Or, mayhaps, couched with thee in murky cave
And oft, too, have I thought—if thou hadst felt,
A moment e'en, the meaning of thy past,
Or vision got of ages yet unborn,
As brutishly thou sought to comprehend
The whence of man and his great destiny,
A thrill had shot thy rugged frame throughout,
And reason's light streamed instant from thine eyes.

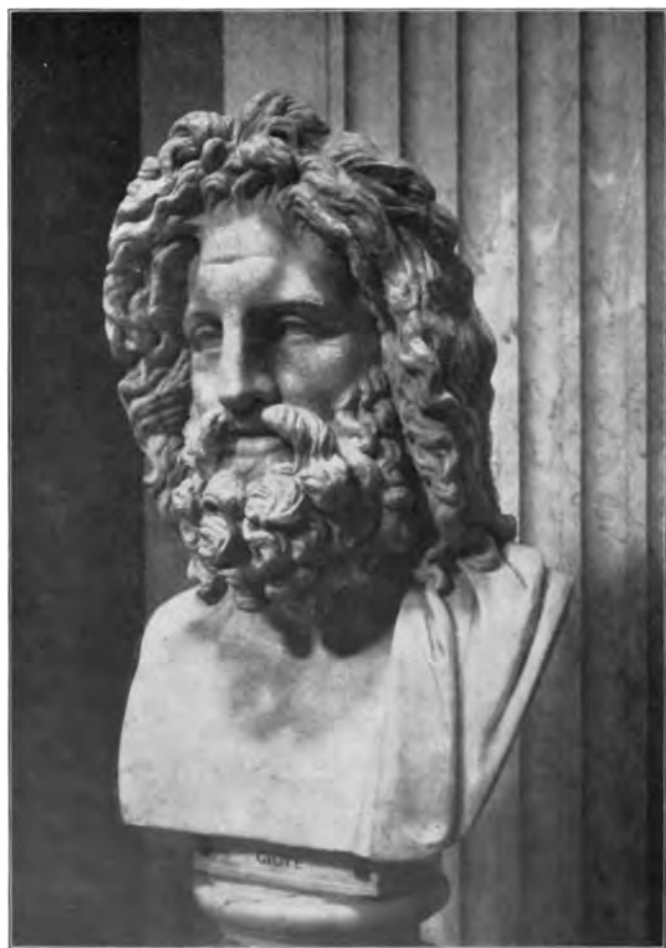
L. L. RICE.

NASHVILLE, TENN.

NOTES.

By an oversight the name of Henry Ridgely Evans, now of the Department of Education at Washington and a contributor to *The Cosmopolitan Magazine*, was omitted in the last two numbers of *The Open Court* as the joint contributor to the book entitled *Magic*, published by Munn & Co., of New York. Mr. Evans wrote the introduction to the work, and also the chapters on mental magic and shadowgraphy. The quotations on pages 426 and 427 were also from his pen.

A philosophical society, incorporated under the laws of the State of Michigan has been organized in Detroit by Mr. Louis J. Rosenberg, an attorney of that city. Its purpose is to encourage the study of philosophy; and lectures and papers by professors from the University of Michigan and by many other prominent thinkers have been announced.



ZEUS.

Colossal mask of Carrara marble, found in Otricoli, near Rome, in the eighteenth century. Now in the Vatican. Period: Fourth century, B. C., or later. From a copyrighted carbon photograph published by A. W. Elson & Co., Boston, Mass.

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**Devoted to the Science of Religion, the Religion of Science, and
the Extension of the Religious Parliament Idea.**

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ON GREEK RELIGION AND MYTHOLOGY.

BY THE EDITOR.

[This sketch of Greek mythology is not intended to be exhaustive. It is designed to serve as an introduction to the significance of Greek mythology solely, incidentally giving a bird's-eye view of the religion of classical Greece and a characterisation of the several divinities according to rank and importance. The philosophical and the moral trend of Hellenic beliefs is duly emphasised, and the data necessary to comprehend the religious spirit of the ancients are detailed in sufficient completeness to allow any one unfamiliar with Greek mythology to gain a general knowledge of the subject.]

INTRODUCTORY.

LOVE of enemies is commonly regarded as an exclusively Christian virtue, and Oriental scholars actually encounter difficulties in finding credence for their assertions that the same injunction is found in the teachings of ancient Asiatic sages, notably in the doctrines of Lao-Tse and Buddha. Obviously the noble sentiment that pervades the Sermon on the Mount is much more universal than is generally assumed; it seems to have developed spontaneously everywhere, making its appearance at a certain stage of completion, at the pleroma or fulfilment of ideals, at the time of moral maturity, as the natural result of the religious evolution of rational beings. Our Teutonic ancestors rigorously condemned all foul methods of taking advantage of enemies and frequently even granted chances to weaker foes. The Indians of North America are still in the habit of doing the same. But it is generally ignored and sometimes even denied that the ethics of pagan antiquity ever reached the high plane of Christian sentiments. Nevertheless, the sages of Greece, the typical representatives of paganism, are full of the noblest morality, evidences of which are even more numerous in their writings than in the New Testament.

In this sketch of Greek religion and mythology we shall take pains to quote selections of such passages and shall add to the translation the original words, so as to leave no doubt in sceptic minds as to the prevalence of Christian morality, so called, among pre-Christian pagans.

The path on which Greek religion travelled to its goal was not the bold flight of prophets and preachers, as was the case with the Hebrews in Palestine; it reached the higher plane by the methods of art, the love of the beautiful, the reverence for scientific truth, and the earnestness of philosophical speculation.



TEMPLE OF PALLAS ATHENE AT ÆGINA.

(From Baumeister's *Denkmäler des klassischen Alterthums*,¹ Vol. I., p. 261.)

Nothing can be more characteristic of the Greek mind than the expression "Kalokagathia" (*καλοκαγαθία*) which means literally the virtue of beauty and goodness, but denotes actually the highest perfection of morality. The term "beautiful" was more significant to the ancient Greek than to other nations, for it always included moral loveliness.

The Greek spirit, always aspiring and at the same time self-poised, always varied in expression and at the same time harmoni-

¹ Hereafter referred to by the abbreviation *B. D.*

ous, never given to exaggeration nor becoming monotonous, is shown forth in temples and public buildings as well as in magnificent marble statues of the gods. The Greeks created a type in art which is the natural idealised, and thus the purely human appears as a revelation of the divinity of man.

Religion transfigured the entire life of ancient Greece. The gods were everywhere: in the temples, in the senate, in the market-place, in the theater, in the homes of the poorest citizens. The mural paintings of Pompeii and Herculaneum prove that even the pantry was not devoid of gods.

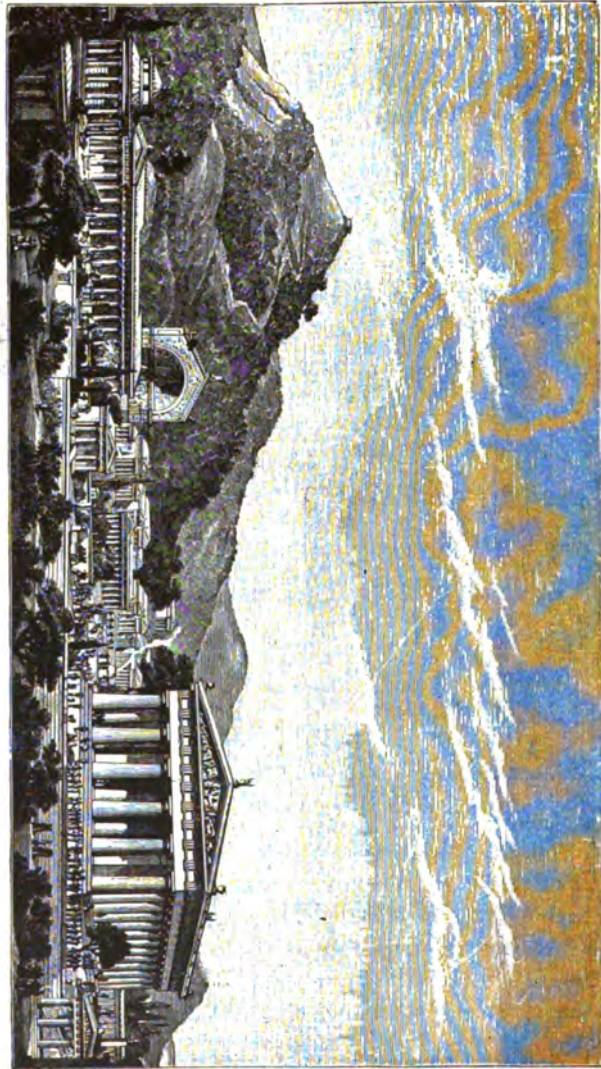


TEMPLE OF ZEUS AT AKRAGAS. (*B. D.*, p. 272.)

Owing to the significant part which beauty of form plays in the Greek religion, we cannot in sketching its evolution dispense with the artistic representations of the Greek deities, which, though sensuous, became transfigured by the artist's ideals and sanctified by the thinker's depth of comprehension. We accordingly propose to reproduce here the most famous statues and pictures of the several Greek deities and to exhibit thus their various characteristic conceptions, not only in the highest types of artistic perfection, but also in some of their archaic forms, so as to facilitate an insight into the historical development of Greek religion and indicate the struggle of Greek artists for the realisation of their ideals.

THE OPPORTUNITIES OF GREECE.

Greek religion was originally mere nature-worship. The personified powers of existence were invoked, propitiated, and adored,

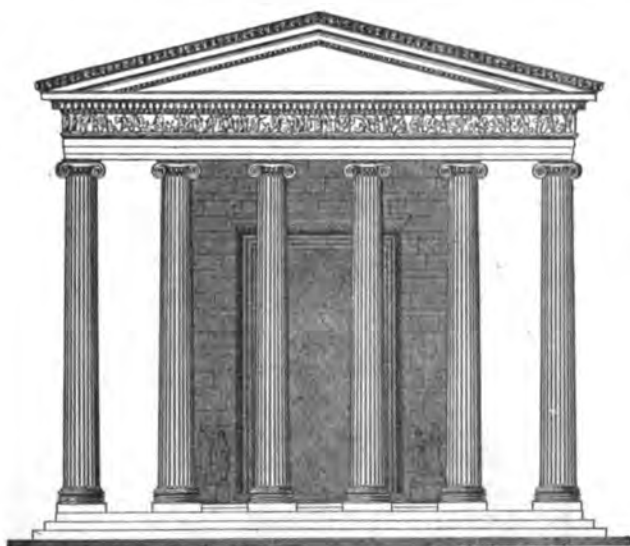


OLYMPIA RESTORED.
(From Springer, *Handbuch der Kunstgeschichte*, I., p. 83.)

and every district had its own mythology, sufficiently differentiated by local coloring, but having the same trend wherever the Greek language was spoken.

At the dawn of history the Greek tribes were still savages; for human sacrifices are mentioned as having taken place even as late as the Homeric age. But humaner conceptions spread rapidly and led to a nobler interpretation of religious traditions.

Greek mythology, as understood by the masses, degenerated through literalism, but, as interpreted by philosophers, attained in the golden age of Greek history a rare purity and loftiness. It is customary to call attention to the crudities of the mythological dress and to condemn the Greek religion as pagan, but the noble applications which the Greek sages made of their traditions are scarcely ever mentioned and are little heeded.

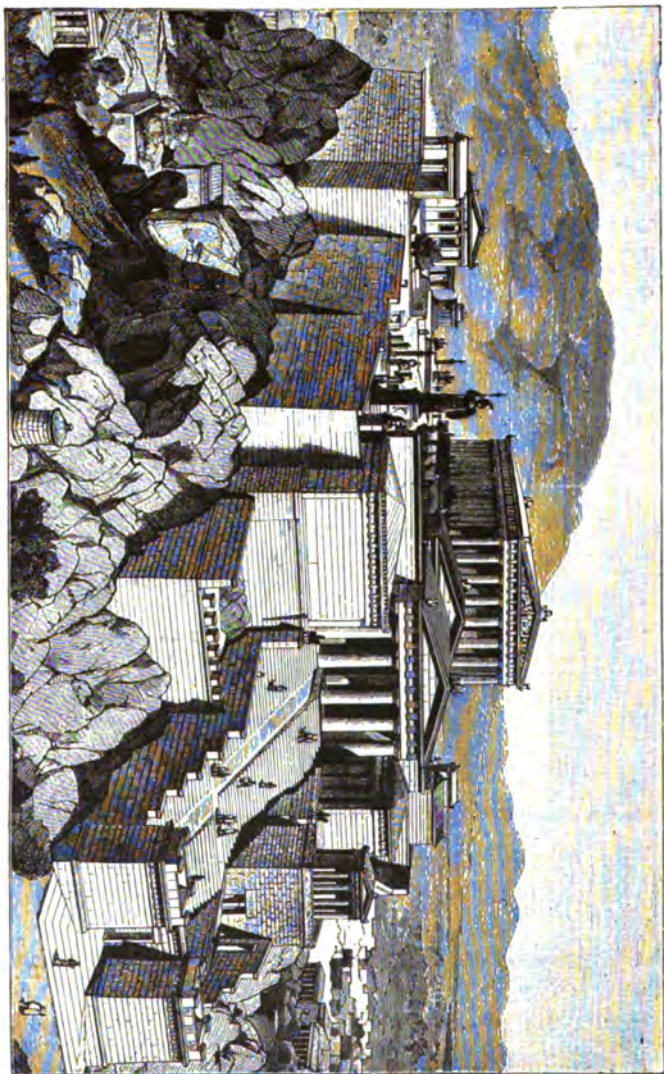


TEMPLE OF ATHENA AT PRIENE.

(*B. D.*, I., p. 276.)

The legends of ancient Greece gradually led up to the monotheism of a belief in the fatherhood of Zeus, as the one uncreated creator and ruler of the Universe. The gods who in the earlier phases of Greek mythology had been the equals of Zeus, became in the more advanced stage like angels or messengers standing before his throne, or were conceived as manifestations of his power, identical with him in their essence; and the accounts of the origin and adventures of Zeus were then treated as mere folklore, no longer deemed worthy of credence except in a symbolical sense.

Further, it is noteworthy that the idea of divine sonship was understood in almost a Christian sense. The son of God, whether Apollo, Dionysos, Hermes, or Heracles, served as a revealer of



ACROPOLIS RESTORED.
(Springer, *Handbuch der Kunstgeschichte*, I., p. 87.)

truth, as a mediator between God and men, and as a savior. In addition, the Dionysos and Adonis myths very plainly indicate the Christian conception of a God who dies and is resurrected for the benefit of mankind, so that all may live in him.



GROUP OF GREEK DIVINITIES.

(From Taylor, *Eleusinian Mysteries*, p. 168.)



HEPHAESTOS, ATHENE, AND THE SEASONS OFFERING WEDDING PRESENTS TO A YOUNG COUPLE.

(Relief in the Villa Albani. After Zoega Bassiril, I., 52.)



THE DIVINITIES PRESIDING OVER THE HOME.

(Fresco in Pompeii. *Mon. Inst.*, III., 6a. *B. D.*, II., p. 811.)

And how did Greece gain her prominence among the nations?

The tribes of Hellas, who were still in a semi-savage state when Egypt and Chaldæa had attained to a high state of civilisation, were visited by Phœnician ships, and thus Eastern culture was introduced among the inhabitants of the islands and coasts of the Ægean Archipelago. It quickly took root there and developed a new independent civilisation, favored above all by the liberty that prevailed in these parts of the world, almost inaccessible to the great conquerors that rose on the Nile and in the land between the two rivers.

The geographical situation of Greece developed in its inhabitants the seafaring instinct and brought them into contact with all



Full statue.



Bust of statue.

ARISTOTLE OF THE PALACE SPADA, AT ROME.
(Visconti, pl. 20, 2 and 3.)

nations of the Mediterranean Sea. Fugitives from the East were welcome, and their superior knowledge was hailed as a revelation, taking root in the minds of the people and spreading rapidly over the whole country.

Transplantation of ideas to a new soil, unhampered by the venerable power of ancient institutions, seems to be an essential condition for progress. Whenever the main principles of an old civilisation take a new start in the hearts of an unprejudiced people whose conceptions of life have not as yet become fixed and are still plastic enough to admit of ventures into new fields, human ideals appear to have a good chance of being better realised and of producing a higher type of culture than before.

Greece in those days of remote antiquity was not unlike the New World. It was a land of liberty, of refuge, of courageous enter-

prise, of progress. Hence its rapid development and the proud rise of republicanism, the ideals of which left indelible traces upon the soul of mankind and contributed not a little toward the building-up of the great republic on the western shores of the Atlantic.¹

The prehistoric inhabitants of Greece seem to have worshipped the same gods as other pagans in the same stage of culture, the personified sky, the earth, the sea; but as soon as a beneficial foreign influence made itself felt, the vernacular traditions developed a deeper significance, sometimes bringing out new and loftier ideas, leading up to a philosophical world-conception which found its realisation in Socrates and its spokesman in Plato.



TWO BUSTS OF HOMER.

(Both in the Capitol at Rome. After Visconti, *Iconogr. gr.*, pl. I., 1 and 4.)

Greek religion is cosmopolitan. Vestiges of Phœnician, Egyptian, Thracian, Syrian, and even Assyrian and Indian legends can be traced in Greek mythology. But the lively intercourse among the various Hellenic tribes and cities assimilated the conflicting stories and produced upon the whole an agreement as to all those deities that played an important part in practical life, leaving contradictions only on questions which touched problems of an abstruse character, or were too indifferent to call for a definite settlement.

¹ While glancing through Targot's works my eye lighted on a passage which contained a similar allusion. Speaking of the development of civilisation, he compares the Phœnician colonies, Carthage, etc., to the colonies in America, saying "elles (les colonies Phéniciennes) firent ce que fit depuis Carthage, ce que fera un jour l'Amérique." (*Œuvres*, II, p. 602.) He meant probably the French colonies, and we can scarcely assume that he foresaw all the changes which took place. His words are nevertheless a remarkable prophecy.

Many ideas reaching Greece from foreign countries were misunderstood, but even then the new conceptions that developed were happy and thoughtful. Thus, for instance, the Egyptian notion of the Sphinx¹ (*hu* in Egyptian), which was the emblem of Hor-em-akhu, i. e., Horus in the Horizon, changed into a symbol of mystery, denoting mainly the riddle of life, the problem of the human soul, which according to the legend was solved by Œdipus.

To us later-born generations the transition from Phœnician and Egyptian beliefs to Greek modes of conceiving the divine appears as a decided advance; but we should bear in mind that considering the matter from the point of view of the Asiatics, our judg-



ŒDIPUS AND THE SPHINX.

Ancient vase-picture. (From Stoll, *Sagen des klassischen Alterthums*, I., p. 270.)

ment would be quite different. Assyrian priests would have felt chilled by the elegant and merely human beauty of the Greek gods; they would have contended that all the power of religion, all its depth and grandeur, were gone. The divine had ceased to be superhuman and had been degraded into commonplace rationalism; the incomprehensible and awful mysteries had been debased into trivial, shallow truisms of personified natural forces and empty abstractions. Even to-day the Hindu can see no divinity in the

¹The Greek word σφίγξ meant "the strangler," and the Sphinx was said to destroy every one who could not solve its question, "Who is it that walks first on four feet, then on two, and finally on three?"—the answer being, "Man."

statue of a Greek god and prefers his multifacial, many-handed idol as being more expressive, more indicative of the supernatural, and more properly religious. We will not enter deeply into this question, but only point out that progress necessarily appears as a degeneration from the standpoint of the old culture, and may in some respects actually suffer losses, which in a certain sense are to be regretted. But progress for all that remains an advance, and we need not fear its changes. Thus the old Anglo-Saxon and still more so the old Gothic languages were possessed of a wealth of forms almost as rich as the Greek, and the development of modern English, in spite of the unfoldment of a beautiful literature, appears from a purely linguistic standpoint with respect to grammar and inflexions as nothing less than a degeneration.

Progress is a building-up of new and higher or broader forms of life and is frequently accompanied by a decay of the old modes of thought. This law manifests itself in the origin of Greek mythology from pre-Hellenic religious notions as well also as in the period of its decadence when it was swallowed up in Christianity. The same law holds good still, marking every step in the evolution of human thought and endeavor.

GREEK COSMOGONY.

The name Homer means "collector," and no scholar now doubts the theory that he is a legendary person. Hesiod lived in the eighth century before Christ, but the *Theogony* which goes by his name is, like the *Iliad* and *Odyssey*, a compilation of various traditions. Happily for the historian and the student of the evolution of religious thought, the *Theogony* did not receive the same careful final redaction as the great epics of Homer, and thus there are left in it a great number of significant crudities and contradictions.

Homer and Hesiod are the great unifiers of the ancient traditions of Greece, for they gave final shape to the mythological views of their nation. In this sense the statement of Herodotus is true that these two poets have formed the characters of the Greek gods and determined their relationships.

In the beginning, so Hesiod tells us in the *Theogony*, the world was a chaos and in it was formed the broad earth Gæa, and under neath it, Tartaros, the Nether World. All the while in the an archical fermentation of aboriginal Chaos, Eros, or Love, was stirring, as the principle of attraction, the same fair god who moves

human hearts and makes them seek one another with tender devotion.

Chaos is commonly, and perhaps rightly, regarded as being without form and void, but its essential feature consists in being potential reality. The word is derived from the verb *χαίρειν* or



THE APOTHEOSIS OF HOMER.¹

Relief made by Archelaos of Priene. (Overbeck, *Gesch. d. gr. Pl.*, p. 465.
Roscher, II., p. 3266.)

χάσκειν, "to yawn," and means the yawning abyss from which existence develops.

¹ Below we see Homer receiving the homage of mortals. Above, Zeus is seated on Olympus surrounded by the nine Muses led by Apollo Musagetes. The tenth female figure, the one nearest to Zeus, is probably Mnemosyne, the mother of the Muses.

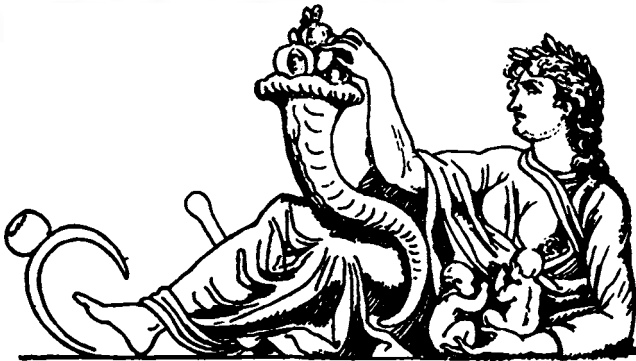
Hesiod proceeds to tell that Chaos begot Erebus (darkness) and Nyx (night), who in their turn brought forth Æther (i. e., the pure air of a clear sky), and Hemera, or Day.

Night, as might be expected, is the mother of all evil powers, including punishment and death. Hesiod says :

"Night bare also hateful Destiny, and black Fate, and Death ; she bare Sleep likewise, she bare the tribe of Dreams ; these did the goddess, gloomy Night, bear after union with none. Next again Momos [envy] and Care, full-of-woes, and the Hesperides [the children of evening], whose care are the fair golden apples beyond the famous ocean, and trees yielding fruit ; and she produced the Destinies, and ruthlessly punishing Fates, Klotho, Lachesis, and Atropos, who assign to men at their births to have good and evil ; who also pursue transgressions both of men and gods, nor do the goddesses ever cease from dread wrath, before that, I wot, they have repaid some vengeance to him, whosoever shall have sinned. Then bare pernicious Night Nemesis [vengeance] also, a woe to mortal men : and after her she brought forth Fraud, and Wanton-love, and mischievous Old Age, and stubborn-hearted Strife. But odious Strife gave birth to grievous Trouble, and Oblivion, and Famine, and tearful Woes, Contests and Slaughters Fights and Homicides, Contentions, Falsehoods, Words, Disputes, Lawlessness and Ruin, intimates one of the other, and the Oath, which most hurts men on the earth, whenscever one has sworn voluntarily a perjured oath."



THE GODDESS NIGHT.
(Taylor, p. 168.)



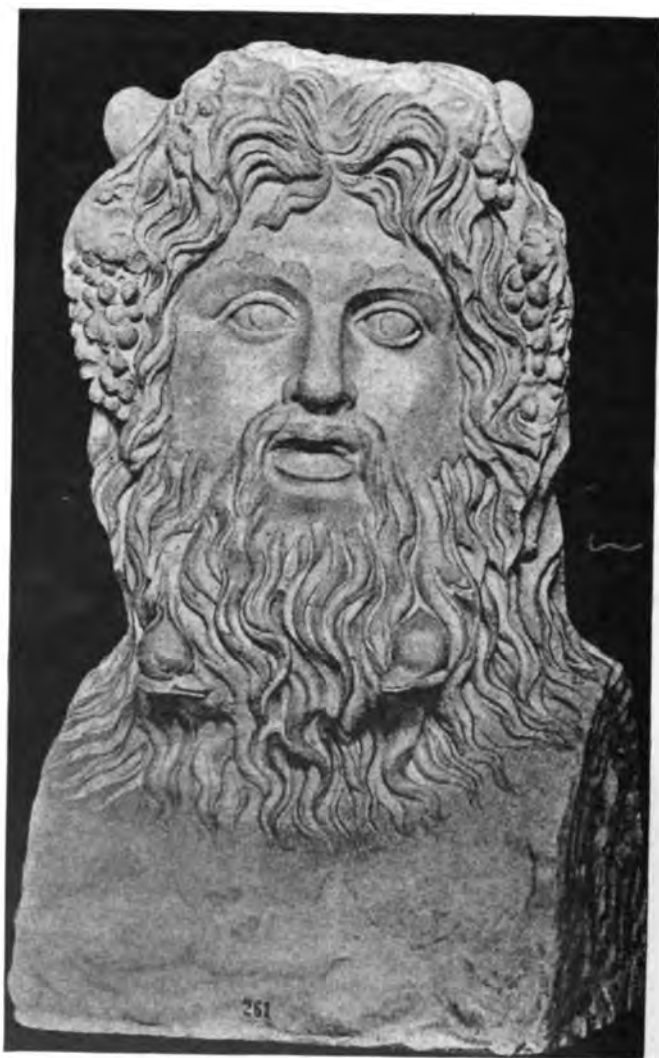
GÆA.

(After Conze, *Götter und Heroengestalten*, II., pl. 56, fig. 2. Roscher, p. 1583.)

Gæa, the earth, then gave birth to Pontos, the sea, and Uranos, the sky. Pontos begot Nereus,¹ the father of the Greek mermaids

¹ The word is connected with *ναῦς*, ship, and means the Navigable. Nereus is a friendly beneficent deity.

called Nereids,¹ among whom Amphitrite, Thetis, Panope, and Galatea are best known.

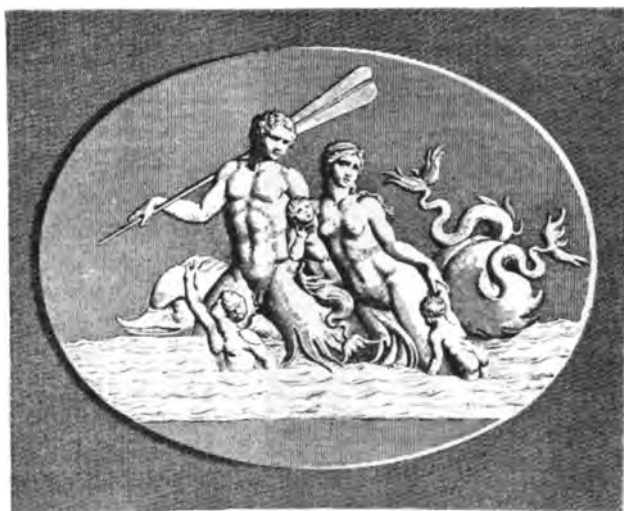


NEREUS.

Colossal Bust found in Naples ; now in the Vatican. (*B. D.*, II., p. 913.)

Amphitrite may be characterised as the souging of the ocean, Thetis as its depth, Panope, the unlimited view to the horizon, and

¹Also called Dorids, after their mother Doris, a daughter of Okeanos.



TRITON FAMILY.
(Enlarged, after Wicar's *Galérie de Florence*.)



OKEANOS WITH THREE OKEANIDS, PRESUMABLY REPRESENTING ASIA,
EUROPE, AND LIBYA.
(Bronze Relief in the British Museum. After *Arch. Zeitg.*, 1884, plate 2, 2.)

Galatea (i. e., milkwhite), the beauty of the breakers in the surf; hence the latter is represented as a coquettish girl who teases and flirts with Polyphemos, chief of the Cyclops, the one-eyed thunder-cloud hovering on the rocky shore.



APHRODITE OF MELOS.

The Tritons, another personification of the billows, frequently appear in the company of the maritime divinities.

Gæa now produces a series of beings begotten partly by Pontos and partly by Uranos, among whom the Titans, the hundred-handed monsters, and the Cyclops are the most prominent.

There are twelve Titans, six male and six female. They are Koios, Krios, Hyperion, Japetos, Okeanos, and Kronos; and their sisters are Theia, Rhea, Themis, Mnemosyne, Phœbe, and Tethys.

The word "Titans," according to the opinion of Greek poets and grammarians, is derived from *τείνω*, to stretch, to reach out for; and is commonly interpreted to mean "the aspiring or the daring ones." Although our classical philologists now believe that the traditional derivation of the word is wrong, it is even to-day

used in the sense of *Uebersensch*, a man of unusual power, the "overman" of the first act of Goethe's "Faust," and the strong, bold intellectual man of the future, of Nietzsche.

As children of Uranos the Titans are called Uranids.¹ □

Okeanos, the all-surrounding ocean, is the ancestor of the Okeanids. His wife is Tethys² and his daughter Amphitrite (the same who is also enumerated among the Nereids) is married to Poseidon and becomes the mother of the Tritons.³

URANOS AND KRONOS.

The Titans are the forerunners of the gods, and the legend tells us that Uranos, the father of the Titans, offended his wife, Gæa, by not suffering her children to live, but throwing them back upon their mother. She requested her sons to take vengeance upon their unnatural father, but no one dared to rebel against the mighty Uranos except Kronos, the cleverest of them, who was full of cunning. Kronos attacked his father, Uranos, from behind, while the latter was visiting his wife, Gæa, and wounded him mortally, depriving him of his creative power. From the blood that dripped upon the earth originated a number of untoward demons, among them the Erinyes, or Furies, the giants and the ash-spirits. The Erinyes represent the pangs of a bad conscience, and the ash-spirits are supposed to



ARCHAIC APHRODITE.
Relief from the Villa Albana.⁴



THE BIRTH OF APHRODITE ANADYOMENE NEAR THE ISLAND OF CYTHERA.
(From Taylor, *Eleusinian and Bacchic Mysteries*, p. 229.)

be the evil-mongers among the tree-fairies, because lances are made of ash. The legend of the mutilation of Uranos was apparently

¹ Aphrodite, the goddess of love, too, is sometimes called a daughter of Uranos and bears therefore the name Urania; but the commoner version of the origin of Aphrodite will be mentioned farther on.

² Tethys, though similar in character, must not be confused with Thetis.

³ According to Homer *xiv.* 246, Okeanos with his aboriginal floods is the father of all things and would take the place of Chaos.

⁴ Müller-Wieseler, *D. a. K.*, plate 24., n. 257. Röschel, *I.*, p. 399.

invented to account for the idea, commonly accepted as a fact, that after the world had been created, the creator discontinued creating new worlds, the creative faculty being then transferred to sexual propagation.



VENUS GENETRIX.

Aphrodite after Alexandrian prototypes.
(Louvre. Bouillon, *Mus.*, I., 11.)

The creative faculty of the god was transferred to the billows of the sea, from whose froth rose Aphrodite, or Venus, the goddess of love. She is accompanied by her son, Eros, and the three graces, Himeros (i. e., longing), Pothos (i. e., desire), and Peitho (i. e., persuasion).

It is perhaps noteworthy that the birth of Eros is not related, but when Aphrodite originates he makes his appearance together with her as his mother.

Eros is commonly represented as the son of Aphrodite, and is called the youngest among the gods. This, however, does not alter the fact that he was the principle of creation as told above, and that he appeared first at the beginning as that principle by which Chaos, which according to its etymology does not seem to signify disorder but potentiality, developed into an orderly universe. Sometimes the two concepts of Eros are distinguished, sometimes

they are confounded. The older Eros, representing the attraction among the atoms as a universal principle of nature, has never be-

come an object of art, and has therefore not been developed into a concrete personality. The younger Eros, however, is regarded as his actualisation just as Jesus is conceived as the incarnation of the Logos that was in the beginning. Eros is frequently represented together with Psyche, the representation of the human soul; and the story of Eros and Psyche is perhaps the most beautiful in all Greek mythology.

Uranos, being defeated by Kronos, ceases to play a significant part in the story of the gods. He loses his power and curses his



KRONOS AND RHEA.

From the Capitolinian altar. (After Overbeck's *Kunst-Myth. Atlas*, 3, 24.
Roscher, *Lex.*, III., 1563.)

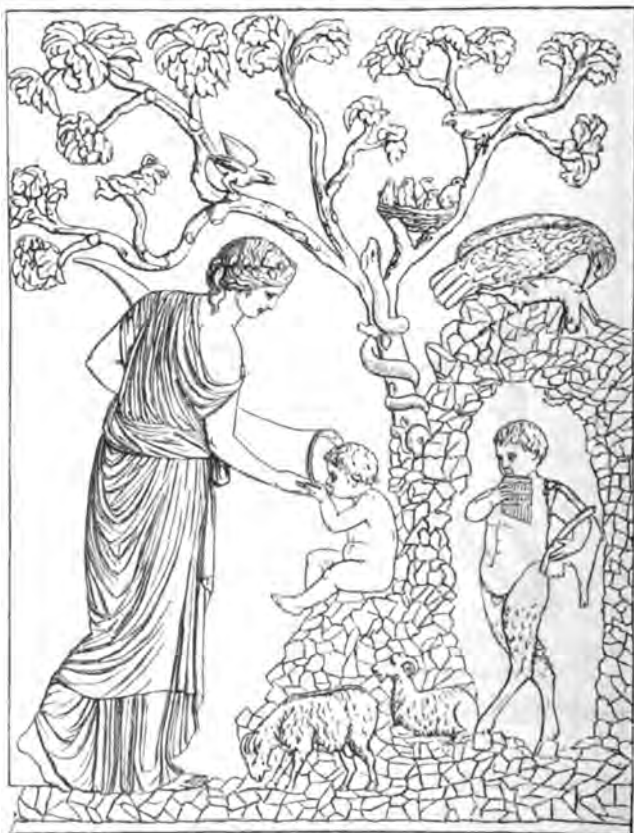
son, prophesying that a similar fate will befall him. Thus Uranos lost the government of the world, and Kronos reigned in his stead.

Uranos is not as yet a real mythological figure; he was never worshipped in Greece and is merely a product of philosophical reflexion.

Kronos, whose reign now begins, married his sister, Rhea, who bore to him three daughters, Hestia, Demeter, and Hera, and three sons, Hades, Poseidon, and Zeus.

Kronos may fairly be supposed to be a foreign, presumably a Phœnician, deity; for the legend tells that he, like the Phœnician

Moloch, demanded the sacrifice of children, and Hesiod, following the traditions of his home, the Island of Crete, relates that the old god was in the habit of eating his own offspring. The philosophers of Greece identified Kronos with Chronos, time, and explained his inhuman conduct in the sense that time swallows whatever it pro-



AMALTHEIA NURSING THE ZEUS-CHILD.

(Benndorf and Schöne, *Ant. Bilder d. Lat. Mus.*, p. 16. Roscher, I., 263.)

duces, and this interpretation, however doubtful the etymology of the word Kronos,¹ has been accepted and is current even to-day.

ZEUS AND HIS BROTHERS.

Whether or not Kronos was an Oriental deity or personified time, the fact remains that while there are very few traces of Kro-

¹ The derivation of Kronos from *κρᾶνεν* in the sense of maturing is not much more probable than its connexion with *χρόνος*, time. See Preller, *R. M.*, p. 51.

nos-worship in Greece, and those that exist are neither ancient nor unquestionably indigenous, Zeus is always called Kronion, or Kronid, i. e., the son of Kronos; and Cretan traditions preserved



1



2

THE MARRIAGE OF POSEIDON WITH AMPHITRITE.¹
By Skopas. Now in the Glyptothek at Munich. (*B. D.*, 1672.)

by Hesiod relate how Rhea, after having lost five children through the cannibalism of her husband, anxious to preserve the sixth child,

¹Cn. Domitius Ahenobarbus, who had charge of Bithynia under M. Antonius, 40 B. C., placed this piece of art in a temple at Rome, and it is therefore probable that Skopas made it for a Poseidon temple of Bithynia.



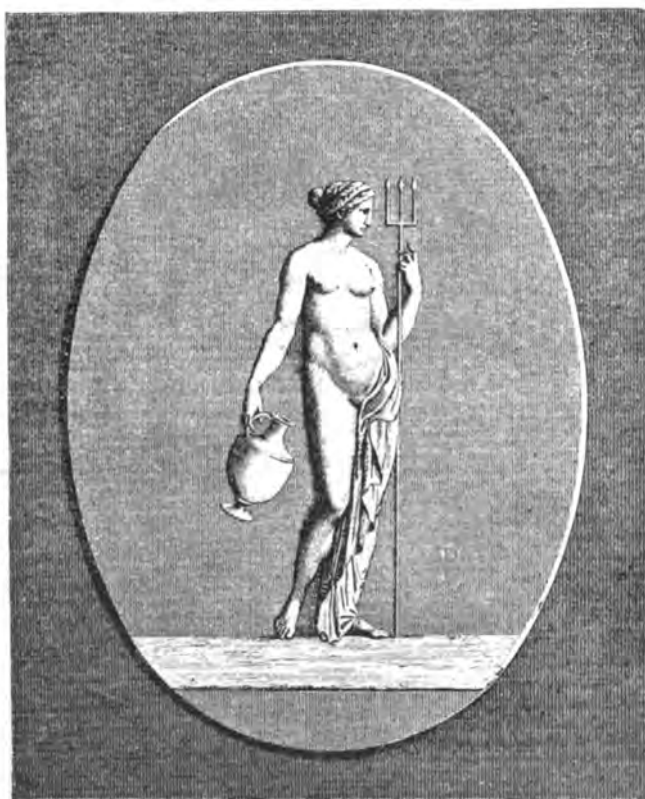
3.

THE MARRIAGE OF POSEIDON WITH AMPHITRITE.
(Continuation of the frieze on the preceding page.)



POSEIDON AND AMYMON.
(Pompeian Fresco. *Mus. Borbon.*, VI., 18.)

the new-born babe that was none other than Zeus, handed to her unsuspecting lord a stone wrapped up in swaddling clothes. The indigestible food, however, turned the stomach of the god, who threw up the five elder children, Hades, Poseidon, Hestia, Demeter, and Hera, and thus restored them to life. In the meantime Zeus was secretly reared by nymphs, with the milk of the goat



AMYNONE, POSEIDON'S WIFE.

(Considerably enlarged from a Florentine Gem. After Wicar, *Galerie de Florence*, I., pl. 91.)

Amaltheia, bees providing him with honey; while the Kuretes, the servants of Rhea, drowned the cries of the infant with the incessant noise made by beating their swords upon their shields. As soon as Zeus had attained to manhood, he combated his barbarous father, and slew him, whereupon the universe was divided between himself and his two brothers. The Under World, the realm of the dead, fell

to the grim Hades,¹ the invisible, so called because he stalks about unseen and his empire cannot be detected by the eye of mortal man. The sea was allotted to the rough Poseidon, but the best part, the inhabited earth and the heavens, was reserved for Zeus. Zeus selected as his residence Mount Olympus whence he and the other celestial gods derived the name Olympians. Though Hades and Poseidon are independent in their domains, they always obey their younger brother whose superiority is never questioned.



POSEIDON.

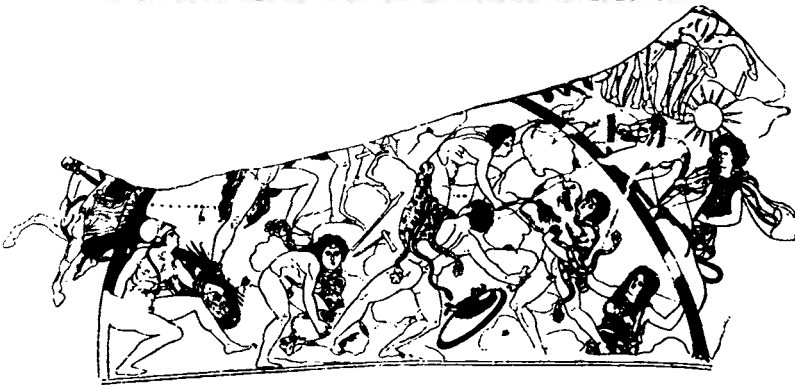
Mosaic found at Palermo. (After Overbeck, *Atlas*, XI., 8. B. D., 1391.)

The older powers in the formation of the world, the blind forces of nature, soon became jealous of the ascendancy of the new and more cultured gods, and so Briareus, Kottos, and Gyes with a swarm of other earthborn giants attacked the Olympians in a fierce combat, but Zeus smote them with his thunderbolts, last of all the youngest-born and most terrible son of the earth, Typhoëus.

¹ Ἄιδης from ἰδεῖν, to see, and α, privative.



ZEUS CONQUERING THE GIANTS.
(Athenion's gem. After Müller-Wieseler, II., 3, 34a.)



GIGANTOMACHY; OR, THE GIANTS STORMING HEAVEN.
From an ancient Greek frieze.



ZEUS CONQUERING TYPHOEUS.
Picture on an antique water pitcher. (B. D., 2135.)

There is no need of mentioning all the love adventures in which, according to the poets, the great Zeus engaged. Most of them are local nature-myths telling the story of the fertilisation of the earth by the rain-spending heaven in various ways and using different names.

Zeus was the chief deity of the Greek Pantheon, and remained so until Christianity degraded his majesty and repudiated belief in



ARCHAIC ZEUS.

Bronze figure found at Olympia.¹
(From *Ausgrabungen*, V., 27.)



ZEUS MELICHIOS.

Colossal head found on the island of Melos.²

him as idolatry. Greek hymns praise him in terms which, in their way, are sometimes not inferior in theological conception to the psalms of the Hebrew, indicating how near the Greek mind had come to producing a pure monotheism and how worthily the Greek poets expressed the idea of the fatherhood of Zeus.

¹ This picture, probably a votive figure, represents the oldest type of Zeus, naked and throwing the thunderbolt.

² See Overbeck, *Kunstmythologie*, 87. His interpretation, however, is doubted and M. Morel (*Desc.*, III., pl. 29) claims the head for Æsculapius.

THE PROPENSITY TOWARD THE MAR- VELLOUS.¹

BY PROF. ERNST MACH.

ALL incitation to inquiry is born of the novel, the uncommon, and the imperfectly understood. Ordinary events, to which we are accustomed, take place almost unnoticed; novel events alone catch the eye and solicit the attention. It happens thus that the propensity toward the marvellous, which is a universal attribute of mankind, is of immense import also for the development of science. It is the *striking* forms and colors of plants and animals, the *startling* chemical and physical phenomena, that arrest our notice in youth. Afterwards the craving for *enlightenment* is gradually aroused, as we compare these unwonted events with the events of familiar and daily occurrence.

The beginnings of all physical science were intimately associated with magic. Hero of Alexandria makes use of his knowledge of the expansion of air by heat to perform conjuring tricks; Porta describes his beautiful optical discoveries in a work entitled *Natural Magic*; Athanasius Kircher turns his physical knowledge to account in the construction of a *magic lantern*; and in the *Mathematical Recreations* of the day and in such works as Enslin's *Thaumaturgus*, the sole purpose for which the more phenomenal facts of physics were employed was that of dazzling the uninitiated. With the fascination intrinsically exerted by phenomenal events was naturally associated in the case of the person first discovering them the temptation to *acquire greater prestige by keeping them secret*, to produce extraordinary effects by their assistance, to derive profit from their practice, to gain increased power, or at least the semblance of the same. Some slight successful venture of this kind may then have kindled the imagination and awakened hopes of at-

¹ Translated from the *Wärmelehre* by T. J. McCormack.

taining some altogether extraordinary goal, resulting in the deception not only of others but perhaps also of the person himself. In this manner, for example, from the observation of some astonishing and inexplicable transformation of matter, may have originated alchemy, with its desire to transmute metals into gold, to discover a panacea, etc. The felicitous solution of some innocent geometrical problem is the probable foundation of the geomancy of the *Arabian Nights*, which divines futurity by means of numbers, as it was probably also of astrology, etc. That *Malefici* and *Mathematici* were once mentioned in the same breath by a Roman law, is also intelligible on this theory.¹ Even in the dark days of mediæval demonology and witchcraft, natural inquiry was not extinguished; on the contrary, it appears to have been invested then with a distinct charm of mystery and wondrousness, and to have become imbued with new life.

The mere happening of an extraordinary event is in itself not marvellous; the marvel is to be sought, not in the event, but in the person observing the event. A phenomenon appears marvellous when one's entire mode of thought is disturbed by it and forced out of its customary and familiar channels. The astonished spectator does not believe for a moment that *no* connexion exists between the new event and other phenomena; but, not being able to discern a connexion, and being invariably accustomed to such, he is led, in the nature of the case, to adopt extraordinary conjectures, which are usually fallacious. The character of these conjectures may be infinitely varied, but inasmuch as the psychical organisation of mankind, conformably to the universal conditions of life, is everywhere pretty much the same, and since young individuals and races, whose psychical organisation is of the simplest type, are most frequently thrown into situations productive of surprise, almost the same psychological phenomena are repeated the world over.

Auguste Comte² first touched upon the phenomena here referred to, and Tylor³ subsequently made a very thorough study of them, utilising the vast material which the ethnology of the savage races afforded. The most phenomenal constant occurrences in the natural environment of the savage, are those of which he himself or his fellow-creatures are the authors. He is conscious of

¹ Hankel, *Geschichte der Mathematik*. Leipzig, 1874. Page 301.

² Comte, *Philosophie positive*, Paris, 1852.

³ Tylor, *Primitive Culture*, two volumes, London and New York.

will power and muscular force in his own person, and is tempted thus to interpret every unusual phenomenon as the creation of the will of some creature like himself. His limited capacity to distinguish sharply his thoughts, moods, and even his dreams, from his perceptions, leads him to regard the images of absent or deceased companions appearing in his dreams, or even those of lost or ruined objects, as real phantom entities, as *souls*. Out of the worship of the dead which here took its being has sprung the worship of demons, of national deities, etc. The conception of sacrifice, which is utterly unintelligible in modern religion, finds its explanation here as the logical evolutionary outgrowth of the funeral sacrifice. Savages are wont to bury with the dead the objects which their phantoms have most desired in their dreams, that the shades of the one may take pleasure in the company of the shades of the other. This disposition to consider all things as like ourselves, as animated and ensouled, is in the same manner transferred to useful or injurious objects generally and leads to *fetishism*. There is a strain of fetishism even in the theories of physics. So long as we consider heat, electricity, and magnetism as mysterious and impalpable entities residing in bodies and imparting to them their known wonderful properties, we still stand on the level of fetishism. True, we invest these entities with a more stable character and do not attribute to them the capricious behavior which we deem possible in the case of living beings; but the point of view indicated is not entirely discarded until exact investigation by means of metrical concepts has taken the place of the fetishistic views.

The failure to distinguish sharply between one's thoughts and feelings and the perceptions of sense, which is noticeable even in scientific theories to-day, plays a predominant rôle in the philosophy of youthful individuals and nations. Things that appear alike in the least respect are taken to be kindred in character and to be closely allied also in *physical efficacy*. Plants that exhibit the slightest similarity with any part of the human body are held to be remedies for corresponding local disorders. The heart of the lion is supposed to augment courage, the phallus of the ass to be a cure for impotence, etc. Ample corroboration of these facts is afforded by the old Egyptian medical papyri, the prescriptions of which are found in Pliny and even as late as Paulinus. Things that are desirable but difficult to obtain are sought after by the most fantastic possible combinations of ingredients, as is amply demonstrated by the recipes of the alchemists. One need but recall one's

childhood to appreciate from personal experience this manner of thinking.

The intellectual deportment of the savage is similar throughout to that of the child. The one strikes the fetish that has deluded him, the other strikes the table that has hurt him; both talk to trees as they would to persons; both believe it possible to climb to heaven by high trees. The phantom world of fairy tales and the world of reality are not sharply distinguished for them. We know this condition from childhood. If we will but reflect that the children of all ages are invariably disposed to harbor thoughts of this character, that a goodly portion even of highly civilised peoples possesses no genuine intellectual culture but only the outward semblance of the same, that furthermore there always exist men who derive profit from fostering the lingering relics of the views of primitive mankind, and that entire sciences of deception even have been created for their preservation, we shall clearly understand why these habits of thought have not yet died out. We may read, indeed, in Petronius's *Symposium of Trimalchio* and in Lucian's *Liars' Friend* the same blood-curdling stories that are told to-day; and the belief in witchcraft now prevalent in Central Africa is not a whit different from that which pestered our forefathers. The same ideas, slightly modified, are also found in modern spiritualism.

From manifestations of life in every respect similar to those of which we ourselves are the authors, the stupendous, significant, and wonderfully *adaptive* inference of an *alter ego* analogous to our own ego is drawn. But as is the case with all thoroughly adaptive habits, this inference is likewise drawn where the premises do not justify it. True, the phenomena of the inorganic world do in a measure run parallel with the phenomena of the organic world; yet, owing to their simpler conditions, they are subject to laws of a far more elementary character. Something similar to will is doubtless existent there also, but the train of reasoning which invests trees and stones with all the attributes of human personality appears at our stage of civilisation unfounded. Even the critically trained intellect infers the agency of an *alter ego* in spiritualistic séances, but it is the ego of the performing mountebank and not that of a spirit.

Darwin¹ has abundantly shown that habits which were originally adaptive continue to exist even where they are useless and indifferent. And there can be no doubt that they also continue to exist where they are even injurious, provided they do not bring

¹ *The Expression of the Emotions.*

about the extinction of the species. The habits of thought above discussed are all based, in their elements, upon adaptive psychical functions, however monstrous they may have become in their subsequent development. Yet no one would think of saying that the human species has been preserved or even bettered by the human sacrifices of Dahomey or by the rival persecutions of witches and heretics inaugurated by the Church. It has simply not perished through these maleficent practices.

Should any one be prone to think that the foregoing discussions are supererogatory for a scientific public, he is mistaken; for science is never severed from the life of the every-day world. It is the blossom of the latter, and is permeated with its ideas. When a chemist who has achieved fame by his beautiful discoveries in his science espouses spiritualism; when a noted physicist does the same; when a renowned inquirer in the domain of biology, after expounding to us in cogent manner the grandeur of the Darwinian theory, closes with the statement that the doctrines he has set forth are applicable only to the organic world but not to the spiritual; when this same inquirer openly professes spiritualism; when prominent psychiatrists show themselves disposed upon the slightest pretext to attribute extraordinary nerve-power to every female mountebank;—it is certain that the intellectual malady of which I have here been speaking is very deeply seated, and that not alone in the minds of the non-scientific public. The malady appears in the majority of cases to spring from a biassed intellectual culture and from a lack of philosophical training. In this event it may be eradicated by a study of the works of Tylor, which exhibit the psychological origin of the views under consideration in a very lucid manner, and so render them susceptible of critical scrutiny. But the situation is not infrequently different. An inquirer elevates his view of the fitful play of the atoms, which serves good purposes in limited domains, to the rank of a world conception. Is it to be wondered at then that his conception seems to him so barren, insipid, and inadequate as to render it possible for spiritualism to satisfy his intellectual, or rather sentimental, cravings?

A few personal observations, which are instructive enough to make public, will show how great the demand for marvels is with some scientists.

I was once in the university town of X, when several distinguished inquirers, whom we shall call A, B, and C, were seized with the spiritualistic craze. The event was to me a psychological problem solely, and I resolved to take a nearer look at the situa-

tion. At the head of the group stood A, whom I had known for a long time. He received me kindly and showed me the wonderful results of his communion with the spirits, expatiating also enthusiastically and picturesquely on the happenings in the séances. In reply to my question as to whether he had really examined closely into all the things described, he answered: "Well, the fact is that I did not myself look into everything so closely, but you must remember that careful observers like C and D," etc. C in his turn said: "I should not have been so much convinced by what I saw myself, but you must remember that accurate observers like A and D were present, who subjected the performances to the most searching scrutiny," etc., etc. I believe we are justified in drawing no other inference from this vicious circle than that any kind of miracle could have counted upon a sympathetic reception from the members of this circle.

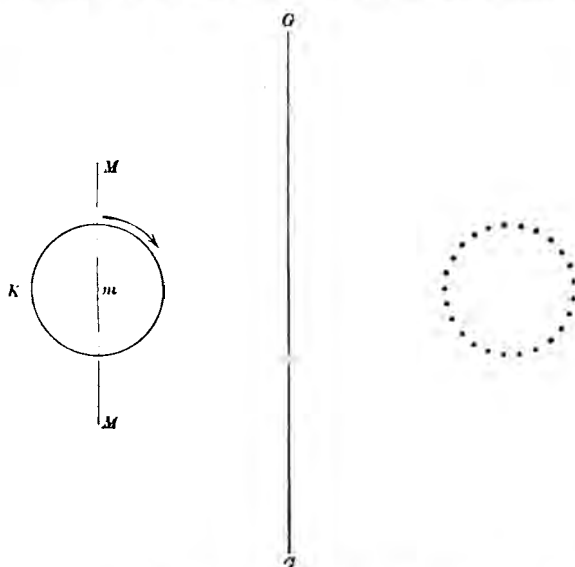
The chief curiosity which A showed me was an ivory ring which could be slipped upon the leg of a round center-table by a conjuring trick only; provided of course the top of the table were not removable. That the top of this table could be easily removed I surmised from its appearance, and imparted my suspicion to another acquaintance of mine in the same town, remarking that with his pronounced predilection for the marvellous A had undoubtedly never once thought of investigating whether such was really the case. Years later, after A's death, I met a friend of his; the subject accidentally came up in our conversation, and I was informed that while the celebrated table was being removed after A's death the leg fell off and the top remained in the hands of the movers.

Let the circle K of the annexed figure be pictured as performing a revolution in space about the axis GG , situated in the same plane with it, and conceive the ring thus described to be composed of vulcanised rubber. Then imagine a knife, MM , thrust through the ring, and conceive a point m of the blade to be carried in a circle round GG as axis, whilst at the same time the blade performs a complete rotation about m , say in the direction of the arrow. In this way, the ring will be cut into two component rings, locked within each other. Simony¹ describes this beautiful geometric and substantially topologic fact along with numerous others of kindred character. I once showed it to an acquaintance of mine, a professor of mechanics, who perceived at once that the two rings could not be separated without tearing them asunder. Now, I am a me-

¹ Simony, *In ein ringförmiges, geschlossenes Band einen Knoten zu machen*, Vienna, Gerold third edition, 1881.

dium, I said, and concealing the two rings for a moment behind my back, I placed them separate and intact upon the table. I shall never forget my friend's amazement. All I had done was boldly and undisguisedly to exchange the locked rings for a pair of detached rings which I had in my pocket. The latter are readily obtained from the operation indicated above by first turning the blade of the knife one-half a revolution about m in one direction and then one-half a revolution in the opposite direction. The two pairs of rings are sufficiently alike to be easily confounded.

I wanted to show my friend how easy it was to be deceived, but his *penchant* for mysticism was not to be eradicated by my



efforts. As a devotee of homeopathy he found a corroboration of his views in the discovery that the merest vestiges of sulphuric acid were sufficient for effecting the electrolysis of water, whereas pure water did not permit of electrolysis. He claimed to have been cured once of a serious affection of the lungs by *natrium muriaticum* (table salt) in minute doses, diluted in the ratio of 1 to 100,000. The remark that the accidental variations in the saline constituents of the food which he ate must have been many thousand times greater than the doses of his physician, could not shake his opinion, which he doubtless carried with him to the grave.

There was once on exhibition in a certain city a girl who had been struck by lightning, and who in consequence of the stroke

ever afterwards gave forth electric sparks. She was not confined to one spot, but was free to move about at will. An old gentleman, Mr. S., an able professional man, was disposed to take the matter seriously, to the undisguised gratification of the proprietor of the show, who must have chuckled gleefully to himself, and inwardly repeated the adage, *difficile est satyram non scribere*. Mr. S. persuaded me to go and see the curiosity. I recognised the sparks as those of a small Ruhmkorff coil, but was unable to discover the connexions, despite the fact that I had brought along with me a cane covered with a strip of tinfoil. My machinist, however, who was a versatile conjurer, lighted upon the secret of the device after a brief autopsy, and an hour later exhibited to the old gentleman his own son similarly affected. The old gentleman was delighted, but when shown the simple contrivance by which the trick had been effected, he cried out: "No, that was not the way it was done!" and disappeared.

Of the common run of spiritualistic séances I will say nothing here. They afford abundant opportunity for observing the ingenuousness of the so-called "educated" public with its insatiable thirst for miracles, as well as the artfulness, sagacity, and knowledge of human nature displayed by the mountebanks. I, for my part, have always felt on such occasions as if I had been transported among savages, in the very heart of Europe.

The tricks of the spiritualists have been repeatedly imitated by prestidigitateurs and sceptics; and the methods have been revealed by which they can be performed. Many mediums have been exposed and have been found guilty of resorting to the tricks of the prestidigitateur. The psychological principles by which the prestidigitateur proceeds¹ are very simple. The psychological habit of regarding things which are at all alike as identical is turned to frequent account here, as in the rapid interchange of similar objects, or where the conjurer assuming an expression of deepest sincerity, *appears* to perform movements which he does not perform, but which are believed to have been performed. A second method is that of concentrating the attention upon a time or place where apparently the event of greatest importance is taking place, whilst in reality that event is being enacted at a different time and a different place. An excellent example of the effectiveness of this method is afforded by the well-known question: "Which is correct, 7 and 9 are 15, or 7 and 9 is 15?" The person addressed, having his at-

¹ See Max Dessoir, *The Psychology of Legerdemain*, in *The Open Court*, Nos. 291-295, 1893.

tention diverted to the grammatical form of the sentence, seldom notices the arithmetical error, at first impulse.

But explanations of this character have no weight with devotees. The tricks which conjurers perform by natural methods are performed for them by spirits, by supernatural methods. Newton's rules of admitting only true causes for the explanation of phenomena, of not assuming more causes than are necessary for explanation, of explaining like phenomena everywhere by like causes, appear to be unknown to these people. On the other hand, many persons to whom spiritualism is instinctively repulsive or who stand in fear of its practical consequences, do not always assume the correct attitude. They frequently characterise spiritualism as a "superstitious belief" and recommend as a preventive against it "the true belief." But who is to decide which belief really is true? If such a decision were possible, it would be wrong to speak of *belief*; we should then rather have to speak of *knowledge*. History arouses our apprehensions here. For as compared with the atrocities with which the extravagant outbreaks of the various "true beliefs" have in times past beatified us, the consequences of spiritualism are, by virtue of their private character, the merest pleasantries. It would be inadvisable accordingly to drive out the Devil by the hand of Beelzebub. The preferable course would seem to be to regard that alone as true and acceptable from a scientific point of view which admits of demonstrative proof, and to entertain in practical life and in science only such suppositions as may lay claim to a high degree of probability from the point of view of sound and sober criticism.

The fallacy of that wide-spread movement of modern thought which fosters spiritualism along with many other intellectual aberrations does not consist of the undue attention which it devotes to *extraordinary phenomena per se*, for these the natural inquirer, even more than any other, may not neglect. Indeed, it is almost invariably extraordinary phenomena like the attraction of light particles by rubbed amber, the adherence of iron filings to certain ores, that lead in their subsequent development to results of greatest significance. The fallacy is also not to be looked for in the belief that our knowledge of nature is not exhaustive and definitive. No natural inquirer will imagine for a moment that new discoveries of great import are impossible, that new and undreamed-of relations between the facts of nature may not still be revealed. The error of these people lies rather in their *reckless and uncritical pursuit of miracles as such*, and in the childish and unthinking delight which

they take in contemplating them and which is productive invariably of chronic insensibility to what is genuinely marvellous and worthy of investigation.

Do not far greater marvels encompass us in reality than the pseudo-miracles that the spiritualists offer? They can lift themselves upon a chair in the dark, but we are able, in broad daylight, before the eyes of all, and by means known to all, to raise ourselves thousands of yards into the air. We can speak with a friend many miles distant the same as we can with a person at our side, and this by the aid of a spirit who does not capriciously conceal himself or act the miser with his powers, but who has freely revealed to us those powers and placed them at our disposal. A three-cornered piece of glass enables us to determine the composition of objects millions of miles away. By means of a few magic formulæ, which are concealed from no man, our engineers discover how a waterfall can be compelled to illuminate our town, by what means steam can be made to draw our burdens, how mountains can be tunneled and valleys bridged. A talisman of heavy metal in my pocket, which every man can acquire by labor, gains for me, by a phenomenal understanding on the part of spirits, everywhere in the world a kindly reception. Even when alone in my own study, I am still not alone. Spirits still stand ready at my beck. A problem perplexes me; I reach out now for this and now for that volume, and suddenly I observe that I have taken counsel of the dead. Galileo, Newton, and Euler have aided me. I too can call up the spirits of the dead. And when I rouse to life again in my own person some great thought of Newton, or develop that thought to remoter consequences, then I have called up the spirits of the dead in a far different fashion from the spiritualists, who can extract from their ghosts the expression of nonsensical commonplaces only.

Are not these far more stupendous miracles—miracles which have actually transformed the world? But they have their drawbacks. Their working is fraught with far more toil than is the making of one's hair stand on end in a darkened room; and it is certainly far less alluring, since, by the common belief, anyone has a chance of becoming a medium.

But the mere taking note of what is extraordinary is not the sole factor by which our knowledge of nature is advanced. There is requisite, in addition, the resolution of the extraordinary into the ordinary, the elimination of the miraculous. The two operations, however, need not be combined in any one person or in any

one period. The alchemists, while proceeding altogether uncritically, made some remarkable observations, which subsequently were put to good use. And the possibility is also not excluded that the modern inquirers into miracle-working may unearth some valuable results. Attention has again been called by this movement of thought to the almost forgotten arts of hypnosis and suggestion; why should not something more of that character and perhaps of greater moment be brought to light?

Of real observations and results there can of course be no question, so long as this domain, which requires the nicest critical discernment for its exploration, remains the *rendezvous* of credulous and uncritical minds. One is confronted every day with the results that are forthcoming when people are determined to see only what is remarkable, and care naught for criticism. I once visited while a student Baron von Reichenbach, the famous investigator of od. According to his frank confession he himself saw absolutely nothing of the wonderful phenomena which he so minutely described, but obtained his information altogether from the persons upon whom he was experimenting. One of these persons, Frau Ruf, confessed to Fechner after Reichenbach's death that the statements of her experiences had been wheedled from her by cross-examination. I gained an ineradicable impression of Reichenbach's method from the following experiment: Passing a ray of light through a piece of Iceland spar, he split it into two parts, each of which was directed into a glass of water; the water of one of these glasses became in this manner od-positive and that of the other od-negative; but it seems never to have occurred to him that the od-positive water would have been changed into od-negative by simple rotation through 90° .

We will not be disposed to condemn the "method" of the spiritualists too severely, if we compare it with the method employed by many psycho-pathologists and neuro-pathologists. When we are told by a physician that a person has been made by suggestion to see an elephant upon a piece of blank paper, we believe it; but when we are told that the same person picked out the same piece of paper from a packet of similar empty sheets, and saw the elephant upon this sheet only, and saw it inverted when the sheet was accidentally inverted, saw it magnified through an opera glass, and reduced in size when the opera glass was inverted,—then this scientific statement taxes rather too severely our credulity. Why not rather say everything is possible, and give up all further investigation as unnecessary?

Constant appeals to our ignorance and to the incompleteness of our knowledge, which is denied by no genuine inquirer, are indeed characteristic of the methods of the professional miracle-seekers or occultists. But the conjectures which may be built upon our ignorance are infinitely numerous, while those which are built upon our knowledge are as a rule but few. The latter are accordingly alone qualified to serve as starting-points for further investigation. Whereas the miracle-seekers see in the incompleteness of our knowledge the possibility and necessity of an extraordinary and phenomenal extension of the same, the obscurantists both within and without science base upon this incompleteness their claims for casting doubt upon the actual results which have been already obtained. How often have we been obliged to hear that the Darwinian theory is still nothing more than a hypothesis, to the demonstration of which much is still lacking, and this from people who would fill up the gaps of science with the relics of mysticism which they have carried with them from their childhood days and which for them it would seem is no hypothesis. The result of this procedure is in both cases the same, the substitution of chimerical illusions for sound, productive knowledge.

The *observation* of singularities in nature does not alone constitute science; the elimination of them is also a factor in its composition. So long as a person sees a miracle in the saving of power accomplished by the lever, so long as he regards it as an exception, and deceiving both himself and others sets to work to construct a perpetual-motion machine on its principles,—that person still stands upon the level of the alchemist. Not until he has perceived with Stevinus that the "marvel is no marvel" has he made a real scientific advance. In the place of intellectual intoxication now comes the delight which springs from logical order and from the intellectual resolution of what is apparently heterogeneous and manifold. The propensity to mysticism appears frequently with unmistakable distinctness even in the exact sciences. Many a bizarre theory owes its origin to this propensity. Even the principle of energy is not without a mystical coloring in some of its conceptions. And, to take a commoner instance, with what satisfaction are not people often heard to remark upon the marvels which we can accomplish with electricity, without ever knowing what electricity really is? What else, pray, can electricity be than the totality of the facts in question, all of which we know and of which, as Popper¹ has aptly said, we hope to know still more? This state of affairs may afford some apology for our having placed the propensity to mysticism in so drastic a light here.

¹ *Die Grundsätze der elektrischen Kraftübertragung.* Vienna, Hartleben.

THE ASSOCIATED FISTS.

THE SOCIETY WHICH CAUSED THE RIOTS, AND LED TO
WAR IN CHINA.

BY THE REV. GEORGE T. CANDLIN.

THIS Society has been wrongly named the "Boxer Society." Though pugilism and wrestling are to some extent practised, "boxing" is entirely unknown in China. It is therefore inadmissible to call them "Boxers." The word employed by themselves, *ch'üen*, means literally "the fist," and the phrase *ta ch'üen t'ou* means to practise pugilism. But the exercises they engage in, now notorious to residents in China, and which have been named "Boxer Drill," bear little or no resemblance either to pugilism or to boxing. They consist of the repetition of words supposed to act as charms, violent contortions of the body, which appear to induce a state of trance, during which the subject is supposed to deliver to the by-standers occult messages respecting the movement. On resuming his normal state he is said to be quite unconscious of anything he has said during his peculiar ecstasy.

The Association has named itself, in the numerous placards it has issued, by two slightly varying names which are used by it with about equal freedom, the *I Ho Chüen* or the *I Ho T'uan*. In each of these names the two first of the ideographs are the same, and there is no doubt about their meaning; *i* in this connexion means "volunteer," and *ho* means "combined," "associated," *ch'üen* means "the fist," or as its etymology implies the hand rolled up; *t'uan* means a guard or train-band. Volunteer Associated Fists or Volunteer Associated Train-bands may sound a little clumsy in Western languages, but they are at any rate correct translations of the names these remarkable rebels have chosen for themselves.

The Society aims at nothing less than the expulsion of all

foreigners and all things foreign from China and the restoration of the Empire to its former position of exclusion and self-sufficiency. Its animus is peculiarly strong against foreign religions, not only because the missionary pervades the whole interior of the country, nor yet because his converts are now, for the first time, becoming a body respectable by its numbers and thoroughly imbued with sentiments earnestly desirous of foreign intercourse and innovation, but also because its leaders, by a true instinct, divine that religion is the great transforming force which, once permitted to permeate



CHINESE IMPERIAL TROOPS PURSUING AND SLAYING BOXERS.
From the *Tung-Wen-Hu-Pao*, a Chinese newspaper of Tien-tsin.

the very springs and secret spiritual forces of the nation's life, will "make all things new." This animus again reaches its most extreme point of intensity in its opposition to the Roman Catholic missions, these being the longest established and the most numerous, and having, so far as we can learn, done more to protect and assist their converts in cases of litigation than the Protestant missions.

But these distinctions are trivial. In the significant phrase often employed in their literature everything foreign is to be driven

off,—merchant hongs, machine shops, railways, telegraphs, guns, rifles: they propose to "make a clean sweep." The Society has been spoken of as patriotic, and it is for this reason, so it is said, that it is protected by the Empress Dowager. This, however, does not hinder it from assailing the government as it stands, and the Emperor himself with all the highest officials in the Empire is fiercely assailed in its publications. We are therefore justified in regarding it as a rebellion. Its manifesto seems rather against individual rulers than against the dynasty itself. Its aim differs from



BOXERS SACKING AND FIRING A CHRISTIAN MISSION.

From the *Tung-Wen-Hu-Pao*, a Chinese newspaper of Tien-tsin.

that of former rebellions and all other secret societies known to us, inasmuch as it is not a crusade of Ming against Ching. It is favored by the Manchu, and a prince of the blood is said to be a member of its secret conclave. The *Ta Tao Hui*, Great Sword Society, has been supposed to be only another name for the same association. It is much more likely that the Great Sword Society was altogether of a subordinate character, but, with many other secret societies, has been caught in the swirl of the vast organisation which has so suddenly and mysteriously sprung into activity. The *I Ho Ch'üen*

itself is not exactly of recent date, and the latest Imperial Proclamation refers to it by name as existing during the reign of Chia Ch'ing.

Altogether the most singular feature of the strange movement is the peculiar relation to it of young children. In every district and in every town it has visited it has commenced its work among young people ranging between the ages of ten and twenty. The "drill" is always commenced by them. We have ourselves seen them practising it, and have received scores of reports of its exercise in town and village, but always when the question has been put what kind of people are they, the reply has been *hsiao hai tsü*, small children. Until actual rioting commenced we had never heard of grown men appearing in the movement. This has been the principal reason why it has been treated lightly by foreign observers, and perhaps has had something to do with the inactivity of the Chinese officials in dealing with it. Mandarins would not arrest and foreigners could not take seriously the doings of very young boys and even girls, until the sudden outburst of murderous and incendiary attacks proved that after all it was no mere child's play.

Of course when the rebels actually appear in arms it is men and not children who do the destructive work, but until that stage is reached, it appears for the most part an affair of children. It is not simply the case that children are aping in public the secret doings of their elders. They are an essential factor in the growth of the Society, in every place where it makes its appearance. It is they who most readily induce the strange trance characteristic of the "drill." To them the mystic messages of the impending advent of their leaders are given. They are its plastic and docile mediums.

We have never been able to quite clear up this point, but their supposed possession of supernatural power seems to be somehow connected with the marriage ceremony. In the placards are mysterious allusions to the "light of the Red Lamp," and the rebels, in addition to wearing red turbans and red girdles, are said to carry red lamps. There is, however, a deeper meaning than this attached to the phrase *hung têng chao*. The *hung têng* is an invariable adjunct of the bridal chamber. *Chao* means "to light," "to illuminate," or "to reveal." Early marriage is practised in China, and it is a curious fact that the marriage age exactly tallies with that of the youths engaged in these singular exercises. It is certain that in addition to much other mythology the movement involves the idea of a revelation, and there is ground for supposing that the

revelation is somehow or other connected with the institution of marriage and that *hung téng chao* may be translated "the enlightening of the bridal chamber."

The Society's method of procedure as it appears to the outside observer is as follows: In any particular place which has been so far undisturbed by their operations, the rumors become more persistent and wonderful as to their doings in other districts, placards of the character which we print below begin to appear, sometimes mysteriously posted on the walls of buildings by night, sometimes handed to individuals on a crowded market. A general state of mingled excitement, fear, and expectation is created, and especially the idea of the advent of invincible swordsmen, armed with supernatural power, and teachers and leaders, is instilled into the mind of a populace superstitious in the extreme, and a large portion of whom are ripe for any mischief and supremely covetous of loot. Then children, varying in age from ten to twenty, are seen in vacant spaces and on the corners of the streets "drilling." In addition to the revelations considered to be connected with these strange exercises, they are supposed to render those who engage in them invulnerable, alike to sword thrusts and rifle bullets. Gradually their numbers increase, older people take part, and then for the first time definite organisation is proposed. Leaders are appointed, adherents are formed into what are called *lu*, "hearths." These "hearths" are equivalent to camps. They number five hundred each, and every member is sworn in to obey the leaders, to sleep and take food together, and to have the grain and meal necessary for their support sent from home. The next step is to commence work by setting fire to some foreign house, railway station, mission chapel, or other obnoxious building, putting to the sword all native Christians they can find, and any hapless "foreign devil" who may fall into their hands. In the performance of this part of the programme it is impossible to distinguish the rebels from the populace. Swarming in thousands, they murder, destroy, and loot till there is little left behind.

In this way, though on a comparatively small scale, the work of the Society was commenced more than a year ago, and large numbers of Chinese Christians in the interior of Shantung were harried out of house and home, taking refuge in the foreign quarters of their mission. The murder of the Rev. Sydney Brooke, a member of the Society for the Propagation of the Gospel, near Ping-yin, was an incident in their campaign of ravage.

The movement has grown to enormous proportions during the

year. It is much to be feared the court itself and the higher officials have connived at its destructive work; at any rate every Chinese official, civil and military, has been paralysed before it. Within hardly more than a month, starting with the massacre of some hundreds of Roman Catholic Christians in the villages round Pao-tingfu, it has swept down the Lu Han railway line, driving the Belgian Engineers before it, and though they made a brave stand again and again, killing four of them,—the rest of the party arriving wounded and almost naked in Tientsin,—it has burnt and looted every station on the line, wrecked the railway, demolished the shops at Fengtai, invested Peking, poured down on the port of Tientsin, it has shut up all the foreign ministers in Peking, the Japanese Secretary of Legation has been murdered, the advance of the British Admiral with a mixed body of three thousand foreign troops has been driven back on Tientsin, the Settlement there has been sacked, and at the moment of writing we do not know how many of the foreign residents of Peking or Tientsin are alive, or what is the fate of the railway from Taku to Tangshan, and of the large railway works and mines there, which foreigners have been compelled to abandon.

Though very little information of a conclusive character is to be had, and there is, therefore, no absolute proof of its existence, everything points to the existence of a very powerful inner council or conclave, which, working in profound secret, matures the plans by which the Society works. It has been hatched in Buddhist monasteries and the purlieus of the yamens. Priests of the Buddhist faith are among the leaders, Governor Yü of Shantung and one of the princes of the blood, Tung Fu Hsiang, a much trusted Chinese general, and even the Empress Dowager herself, have been boldly mentioned as members of it. This council concocts the mysterious placards, sends forerunners who work up the bands in various districts, and has men in it of sufficient influence to bring over to its side the gentry of each district and above all to *silence* the officials.

The four placards of which we append translations may be taken as representatives of the mysterious literature of the Society. They have well marked features in common although put out in places many miles apart, and more especially what for want of a better term we may call the mythology of the movement is the same. Succinctly stated, it is as follows:

The present is a peculiar era in the history of the Empire when the interference of power from heaven is to rescue it from

the clutches of all foreigners and from the defilements of all foreign innovations. This is done by sending down from heaven uncountable legions of spiritual soldiers, generally spoken of as swordsmen. These spiritual warriors, being invisible, and, apart from human agency, impotent, it is necessary that they should "possess" ordinary men in order to effect their purpose. The so-called drill has for its object to induce "possession," and individuals so possessed become invulnerable and invincible in fight.

It may seem strange that any considerable number of people can be found capable of crediting so wild a notion. Precisely here is the difficulty which the Occidental mind finds in really understanding the Orient. Extravagant as it may sound, there is no Chinaman high or low, friend or foe to the Society, from the Empress Dowager downward, who does not believe in the reality and power of this so-called possession.

We will now introduce the Placards. The first is a somewhat long one and in the original is in verse. This detracts nothing from its serious character. In China even official proclamations are issued in versified form. It is dated the third day of the third month, which in the Western calendar is April 2d. This date was some time before the beginning of the Paotingfu massacre. The translation of this and the following placards has been purposely made more literal than really good translation would allow, in order to keep up the peculiar idioms of the original, and it will strike the reader as being somewhat Biblical in its expressions. It is merely the natural utterance of Eastern ideas. It was issued in the district of Paotingfu.

BOXER PLACARD NO. 1.

The Chinese Empire has been celebrated for its sacred teaching. It explained the decrees of heaven and taught human duties, and its civilising influence spread like an ornament over river and hill.

But all this has been changed in an unaccountable manner. For the past five or six generations bad officials have been in trust, bureaus have been opened for the sale of offices, and only those who had money to pay for it have been allowed to hold positions in the government. The graduation of scholars has become useless, and members of the college of literature and scholars of the third degree are in obscurity at home. An official position can only be obtained at the price of silver. The Emperor covets the riches of his ministers, these again extort from the lower ranks of the mandarinat, and the lower mandarins in turn (by the necessity of their position) must extort from the people. The whole populace is sunk in wretchedness, and all the officials are spoilers of their goods. The condition of the yamens is unspeakable. In every market and in every guild nothing can be done except money be spent. The officials must be bribed, all sorts of exactions are made. The people, ignorant and helpless, are the only ones who cannot practise

extortion. These officials are full of schemes, none of which are in accordance with the three principles. Having forfeited their heaven-derived disposition, they are unreasonable and unregulated. They are all alike, ill-gotten wealth is their one object. Right has disappeared from the world. There is nothing but squabbling and extortion on all hands, and law-suits are unnumbered. In the yamens it is useless to have a clear case; unless you bribe you will lose the day. There is none to whom the aggrieved may appeal. The simple multitudes are killed with oppression, and their cry goes up to heaven itself and is heard of God. Though spiritual beings and sages had been sent down to teach right principles, to issue good books, and instruct the multitude; few alas heeded. Who is there that understands? The evil go on their course rejoicing, while the spiritual powers are conscious that their teaching has been vain.

Now, in anger, the heavenly powers are sending down multitudes of spirits to earth to make inquiry of all, both high and low. The Emperor himself, the chief offender, has had his succession cut off and is childless. The whole court, both civil and military, is in an unspeakable condition. The widows cry in vain, they blindly sport, repenting of nothing and learning nothing good.

Greater calamities still have overtaken the nation. Foreign devils have come with their teaching, and converts to Christianity, Roman Catholic and Protestant have become numerous. These (Churches) are without human relations, but most cunning, have attracted all the greedy and covetous as converts, and to an unlimited degree they have practised oppression, until every good official has been corrupted, and covetous of foreign wealth has become their servant. So telegraphs and railways have been established, foreign rifles and guns have been manufactured, and machine shops have been their evil delight. Locomotives, balloons, electric lamps the foreign devils think excellent. Though they ride in sedans unbefitting their rank, China yet regards them as barbarians of whom God disapproves and is sending down spirits and genii for their destruction. The first of these powers which has already descended is the light of the Red Lamp, and the Volunteer Associated Fists who will have a row with the devils. They will burn down the foreign houses and restore the temples. Foreign goods of every kind they will destroy. They will extirpate the evil demons and establish right teaching—the honor of the spirits and the sages—they will cause to flourish their sacred teaching. The purpose of heaven is fixed and a clean sweep is to be made. Within three years all will be accomplished. The bad will not escape the net and the goodness of God will be seen. The secrets of heaven are not to be lightly disclosed. The day of peace to come is yet unknown, but at least the Yin Mao Years (1902-1903) must come before the time of long life. Our little song ends here in a promise of happiness to men, the joy of escape from being cut off. This last word summary of all.

Scholars and gentlemen must by no means esteem this a light and idle curse, and so disregard its warning.

There are two significant features about this production. It unsparingly arraigns the whole body of Chinese rulers, including the Emperor himself, and it links together by ties of cause and effect the introduction of foreign religions, foreign customs, and foreign goods, with official corruption. Every foreign resident in China will thoroughly agree with the former portion but will be

amazed at the latter. We do not look to be blamed for the corrupt doings of the Mandarins which we are never tired of condemning. Yet to a Chinaman who does not understand that our position is due simply to the exercise of force, it is quite natural, and indeed inevitable, to assume that it is bribery that brought in the foreigner and all his ways.

Our next specimen is also from the district of Paotingfu, and was issued about the same time as the last one. It is much more minatory in character and might be called the "Ten Plagues." Its style seems peculiarly calculated to fascinate and excite the public mind. The first clause is in the nature of an invocation. The phrase, "in the presence of," is in the original *lin t'an*, literally "descends to the altar." The idea of the writer is that the present is a time peculiar for her appearance. We attach a few notes to elucidate obscure points. This placard, judging by its style, is probably a Buddhist production.

BOXER PLACARD NO. II.

In the presence of the revered Mother, the Goddess of Mercy.

This year being one of rapine and swordsmen being peculiarly evil, (a) the myriad-fold holy one (b) has descended to earth, and the good and the evil are to receive speedy retribution. Since the multitude have ceased to believe in Buddha and are unfilial towards their parents, (c) high heaven is despatching in its anger a million spiritual soldiers to reward the good and punish the evil. By burning incense night and day, and practising filial piety, an entire family may escape the bitterness of the sword. But whatever family may set their hearts to revile the gods and to neglect filial behavior toward father and mother, that family will be cut off and will fall into perdition. Should the people continue in unbelief there will follow hereafter ten unescapable sorrows (d).

First Sorrow.—Incense burning will cease throughout the Empire.

Second Sorrow.—Blood will flow and fill the streams of all the hills.

Third Sorrow.—Grain and meal will become refuse (e).

Fourth Sorrow.—All the living will be involved in iniquity.

Fifth Sorrow.—The roads will be without passengers.

Sixth Sorrow.—Orphans and widows will speak of their dwelling-place (f).

Seventh Sorrow.—There will be none to protect from rapine.

Eighth Sorrow.—All the living will enter the Yellow Springs (g).

Ninth Sorrow.—Disease and distress will afflict the people.

Tenth Sorrow.—There will be no peaceful years.

Issued under the light of the Red Lamp at Such'iao (h). If those who see this paper circulate it immediately they will escape the suffering of the sword.

(a) "Swordsmen being peculiarly evil," *tao ping ta hsung*. This phrase is somewhat obscure. Compare the Bible phrase "When I bring the sword upon a land."

(b) "The myriad-fold holy one." *wan shêng*. A title of laudation bestowed on the goddess of mercy by her worshippers.

(c) Mark the close association of idol-worship with filial piety.

(d) "Unescapable sorrows," *nan mien tsü ts'ou*, literally "most difficult to escape." It is perhaps not necessary to translate by the stronger term "unescapable," but the idiom is in use and is probably the sense intended.

(e) "Grain and meal will become refuse," *shên t'u*, literally "dung and earth," i. e., thrown about and trodden under foot.

(f) "Orphans and widows etc." This is the most pathetic of all the "ten sorrows." The first question asked in China is your name, and the second, where you come from. The idea is that they will be scattered far from home and to the familiar inquiry will give sad reply.

(g) "The Yellow Springs," a poetic and mythological expression for Hades the place of the dead.

(h) Such'iao, a town near Paotingfu. Not Suchow near Shanghai.

Our third specimen is a handbill which was being distributed on market-day at a town some twenty miles north-west of Yangshan, the great mining and railway center in North China. It was handed to us by a Chinese friend into whose hand it was thrust. Li Po was a famous poet of the T'ang dynasty. We do not know what his name is doing here. This placard contains internal evidence of being written by a Buddhist priest. Two of its ideographs are written in an ancient style peculiar to temple literature. Singularly enough terms used for foreigners are not abusive.

BOXER PLACARD NO. III.

The bestower of happiness, the God of Wealth.

A CIRCULAR FROM LI PO.

Inasmuch as the Roman Catholic and Protestant Churches have deceived the spirits and destroyed the (teachings of) the sages, and are not obedient to the law of Buddha, eighty thousand spiritual soldiers will come in the clouds to sweep out the foreigners from abroad. Express divination has been made that, before long, swordsmen will come rolling down, and calamity will be on the army and the people. The Buddhist Volunteer Associated Train-bands are able to pacify the people and defend the empire. Upon sight of this, such persons as distribute three copies will avert calamity from one family, while those who distribute ten copies will avert calamity from a whole village. Those who, having met with, refuse to dis-tribute, will be liable to the punishment of decapitation.

Unless the foreigners are subjugated there will be no rain.

If any persons have taken poison from foreigners the following recipe is a specific against it :

- I. Dried Plums 7 mace.
- II. Euonymus Bark 5 mace.
- III. Licorice Root 5 mace.

The last placard needs no special note. It was posted in Yangshan itself, where the writer was resident about June 15th. It ascribes the want of rain to the disturbing influence of foreign-

ers. There had been a terribly dry spring, with unceasing wind, and famine was in prospect for the district.

BOXER PLACARD NO. IV.

For the information of dear friends in each village.

It is not generally known that the reason why there is no rain this year is that on the fourth day of the fifth month, between the hours of three and five in the afternoon, the Volunteer Associated Train-bands will entreat the god of fire to descend and burn the Protestant Christian Church. The Volunteer Associated Train-bands will have swordsmen rolling in. If any one doubts this let him observe the dust-storms now blowing.

Buddha, the Illuminated, is manifesting his sacred character to Governor Yü of Shantung, and in a dream has given the sacred word that on the fourth day of the fifth month no fire is to be kindled. Those who are accustomed to be in close proximity to fire must remain still for the first five days and will thus escape disaster from fire. The Volunteer Associated Train-bands on this account publish the present circular. Those who distribute many copies will save many lives, while those who distribute few will save a few.

The following is a translation in prose of the Rhyme and Motto said to be uttered in "Drill" when the neophyte first stands on a cross marked on the ground.

RHYME AND MOTTO OF THE BOXER DRILL.

Heavenward strike and heaven's gate will open,
Earthward strike and earth's gate will open,
You must learn the *i ho ch'üen*,
But the teachers have yet to arrive.

With composed mind and sincere heart practice the *i ho ch'üen*.

MISCELLANEOUS.

MADAME CLÉMENCE ROYER.

The appearance of a new voluminous work on cosmogony, the *Constitution du monde: Dynamique des atomes: Nouveaux principes de philosophie naturelle*,¹ by Madame Clémence Royer, marks the crowning and definitive event of a life of single and unceasing devotion to science. It is a monumental production

in whatever way one may look at it. It shows vast learning, a profound acquaintance with the mathematical and physical sciences, and a powerful command of philosophical literature. It is unofficial and unoracular in its utterances, unaffiliated with any school or set of doctrines; it is at direct variance with many of our most cherished intellectual and scientific prejudices; it may be said to contain, from the point of view of received and accredited scientific opinion, many vagaries and untenable theories. It has the fantastic and hypothetical coloring of all speculative cosmogonies, the unfailing drawbacks of a luxuriant scientific imagination, metaphysically applied. Yet it stands as a unique performance even in a country which has produced a Sophie Germain, and merits attention from the



MADAME CLÉMENCE ROYER IN 1865.

mere character, courage, and altitude of its effort, if not from its positive and enduring contents.

Madame Clémence Royer, biologist, anthropologist, sociologist, political economist, physical scientist, and philosopher, came of ancient Breton stock, the source

¹ Paris: Schleicher Frères, 15 Rue des Saints-Pères. 1900. Pages, xxii, 799. Price, 15 francs.

of some of the sturdiest intellects of France, and was born at Nantes, April 21, 1830. The years of her early womanhood were spent in Switzerland, where she devoted herself assiduously to scientific study and research. She lectured professionally at Lausanne, Neuchâtel, Chaux-de-Fonds, and Geneva. She wrote there also, at the instance of the government, an economic treatise, which shared the prize with the celebrated socialist, Proudhon. Lamarck and the theory of evolution were early subjects of her studies, and she was the first to translate the *Origin of Species* into French: she was the god-mother of Darwinism in France. These labors were supplemented by numerous memoirs in the encyclopedias, dictionaries, and technical reviews on evolutionary topics, and subsequently by a large number of independent works on the origin of society, and on a great variety of geological, archæological, astronomical, physical, politico-economical, and philosophical subjects.

But great as Madame Royer's activity was, it was not productive and it was officially not recognised. Little came from her pen,—for science is a profession of love, not a profession of bread. From her earliest days she had been compelled to make her livelihood chiefly by lecturing; and the declining years of her life, intellectually strong but physically blighted, have been spent in Neuilly amid the protecting walls of the *maison de retraite* founded by the celebrated Galignani brothers as an asylum of refuge for authors, printers, and booksellers. The one bright spot in this sombre sojourn was the brilliant fête tendered her in 1897 in the halls of the Grand Hotel by the intellectual élite of Paris and of France,—a tardy justice, splendidly satisfactory from a spiritual point of view, but partaking, materially, somewhat of the nature of a posthumous consolation.



MADAME CLÉMENCE ROYER IN 1899.

With regard to Madame Royer's new volume, published through the generosity of a friend, Madame Valentine Barrier, we may be brief. It is a work of erudition, concerned with such questions as the historical evolution of the idea of matter, the mathematical, logical, and metaphysical laws of being, phenomena of vibration (heat, light, sound, etc.), the physical and chemical constitution of solid, liquid, and gaseous bodies, the nature of life, gravitation, the theory of the tides and the evolution of worlds. It is filled with numerous finely executed diagrams and brilliantly colored plates, illustrative of the text, and its pages bristle with formulæ. To study the work critically, considerable knowledge of the exact sciences is requisite, but the introductory parts and the chapters on the evolution of the

worlds, which form the most interesting matter of the volume, are within the reach of any reader of philosophical and scientific taste, who will be repaid by the review of the facts here presented, whether they engage his assent or incur his condemnation. Personally, our sympathies are not enlisted by atomistic speculations; but Madame Royer's atomism is not the orthodox atomism of Epicurus, attacked by Stallo and Mach, to the former of whom she frequently refers in her animadversions; it is Madame Royer's own theory of a fluid atom, expansive and repulsive, dispensing with empty space, and held capable of effecting by its vibrations all the sensible phenomena of light, heat, and sound. It forms the basis of an hypothesis which binds together all the known laws of physics, chemistry, and biology, and enables us to reach deductively the theory of their specific phenomena; embraces even, in its mechanistic net, the phenomena of biology, by sketching the probable mode of constitution of the cell and the probable course of the transformation of matter and ether into living substance; and supplants finally the impossible mechanism of gravitational attraction, referring the movements of the stars to thermal causes.

It will be seen that Madame Royer's book is a *Naturphilosophie* of the purest water. It is nevertheless aglow with faith in science and a firm belief in the solubility of its problems; it is the pronounced antagonist of scientific agnosticism in any form; and as such it must command our unqualified admiration, be our critical opinion of its tenets what it will.

T. J. McC.

INVOCATION.

Eternal Good! Or if by other name
We know Thee best,—source of power and light,—
We reach in quest of that beyond our sight;—
Perfection's gift from other never came.

We do not ask for any selfish thing;
To change great Nature's plans if we should try,
Our works and wishes all would quickly die;—
We would not dictate to so wise a King!

Within our hearts we only crave the best
Which will arouse a great and good desire
For high, eternal truth, e'en writ in fire;—
We humbly take whate'er is Thy behest!

EDWARD WILLIAM DUTCHER.

STILLWATER, MINN.

THE SCHOOL, AND SOCIETY.

A more ideal and fascinating scheme of elementary education than that projected by Prof. John Dewey, of the University of Chicago, in his *School and Society*, a little book of which the second edition was issued last year by the Chicago University Press, can scarcely be imagined. It embodies the ideas of the acutest modern educational critics, it is the incorporation of what has suggested itself as

possible to thousands and thousands of thinking persons, and it has the advantage of having been submitted to a practical working test for three years and of still being in actual operation. Whether the school is anything more than a sweet academic vision, attractive and commendable on paper only, whether it is realisable in all its details, and in the long run will be productive of the results theoretically predicted for it, the future alone can determine. We shall outline briefly the ideas underlying it.

Our social life, says Prof. Dewey in substance, has undergone a thorough and radical change in the last two generations. If our education is to have any meaning for life, it must pass through an equally complete transformation. This transformation is already in progress, as shown by the modifications that are rapidly taking place everywhere in our educational methods and curricula,—the introduction of active occupations, nature study, elementary science, art and history, the substitution of the concrete for the abstract, the change in the moral school atmosphere, in the relation of pupils and teachers, the introduction of more active, expressive and self-directing factors. The movement having begun, all that remains is "to *organise* these factors, to appreciate them in their fullness of meaning, and to *put the ideas and ideals involved in complete, uncompromising possession of our school system*. To do this means to make each one of our schools an embryonic community life, active with types of occupation that reflect the life of the larger society, and permeated throughout with the spirit of art, history, and science."

Such virtually was the old scheme of practical education which we have now outlived and which centered about the household and neighborhood system, as the centers in which were carried on all the typical forms of industrial occupation. Here the whole process of lighting our homes, for example, stood revealed in all its toilsome length, from the killing of the animal and the trying of the fat to the making of wicks and the dipping of candles. Not only was the clothing made in the house, but the members of the household were familiar with the shearing of the sheep, the carding and spinning of the wool, and the plying of the loom. So it was with every other industrial project, flour, foods generally, lumber, building materials, household furniture, metal ware and hardware of all descriptions. The centers of production were in the immediate neighborhood, and the processes stood revealed to the community in their entirety. Here was a solidarity of interest and of occupation which is entirely lacking in the modern community, where the industrial processes leading to the creation of the aforementioned products are almost absolutely withdrawn from individual observation. In those days everything was a matter of immediate personal concern, everything a matter of actual participation. The results were a "continual training of observation, of ingenuity, of constructive imagination, of logical thought, and of the sense of reality acquired through first-hand contact with actualities. The educative forces of the domestic spinning and weaving, of the saw-mill, the grist-mill, the cooper shop, and the blacksmith forge, were continuously operative."

But by modern concentration of industry and division of labor these household and neighborhood occupations have been practically eliminated, at least for educational purposes. The conditions have changed radically, and an equally radical change in education is demanded. There are rich compensations, it is true, in the new domains of human experience opened and in the corresponding natural training which the new experiences also have brought with them; but the physical realities of life, the occupations which exact personal responsibilities, still remain in need of emphasis. To fill this gap in the modern educational life manual training

has entered, shop work and the household arts, sewing and cooking; but it has been done in a half-hearted, confused, and unrelated way; the point of view has been too narrow; work in wood and metal, sewing, weaving, and cooking, still remain to be conceived as *methods of life*, not as distinct studies, to be conceived in their *social significance* as types of the processes by which society keeps itself going, as ways in which the primal needs have been met by the growing insight and ingenuity of man; as instrumentalities through which the school itself shall be made a genuine form of active community life, instead of a place set apart in which to learn lessons. Such a school one enters as one does a busy workshop, where a certain disorder almost is apparent; there is no silence, there is none of the discipline of the conventional school; the children or workers are not engaged in maintaining certain fixed physical postures; their arms are not folded; they are not holding their books in predetermined positions; there is the confusion, the bustle, that comes from activity. Yet, out of it all, out of this occupation, this doing of things to produce results, and the doing of them in a social and coöperative way, there is born a more distinctive and genuine discipline, superior to and far more effective than the discipline of the traditional type.

The introduction of active occupations, further, gives the school a chance to affiliate itself with life, to become the child's habitat, a miniature community, an embryonic society. This is the fundamental fact from which it is possible to create continuous and orderly sources of instruction. The unity of the sciences for educational procedure, as thus conceived, is found in geography, which presents the earth as the enduring home of the occupations of man, as the source of the materials upon which he has imprinted the stamps of his industry and achievement, as the source of the great energies which he has curbed and diverted to his own uses as the determining cause of his historical and political progress. In connexion with the occupations of weaving, carpentering, etc., the historical development of man admits of being recapitulated, and a thorough insight is gained into the nature of the materials used and the mechanical principles. The primitive inventions are remade by the teacher and children, the experiences of entire phases of industrial and social development repeated in epitome; one can in this way, as the author says, concentrate the history of all mankind into the study of the evolution of the flax, cotton, and wool fibers into clothing.

Such is the aspect of the school viewed from the point of view of the larger life of the community; but we may also consider it in relation to the life and development of the children. Here its work is based on the ideal home, where the child learns from the social converse and constitution of the family; where he participates in the household occupations, thus gaining knowledge; where he acquires habits of industry, order, and regard for the rights of others; where he is permitted to work out his constructive instincts naturally, and where in many cases he has his own miniature workshop and laboratory in which he can pursue his inquiries of his own free accord, and even extend those inquiries into the surrounding fields and forests. Organised and generalised, this ideal home is the ideal school. "It is simply a question of doing systematically and in a large, intelligent, and competent way, what for various reasons can be done in most households only in a comparatively meager and haphazard manner."

The object of this ideal school is not learning, but first *living*, and then learning through and in relation to this living. The question of education is simply the question of taking hold of the child's activities, of giving them direction. The activities are already there; they are furnished by the child's life and environment.

Through direction, through organised use, these activities and impulses may be made to tend toward valuable results, instead of scattering or being left to merely spasmodic expression. The instinct of children to use pencil and paper is taken as an example. If they desire to express themselves through the medium of form and color and this desire is simply indulged in at random, there is nothing but accidental growth; but if the child is first allowed to express his impulses, and then through criticism, question, and suggestion *is brought to the consciousness of what he has done and of what he needs to do, the result is quite different.* The first of the accompanying illustrations is a child's drawing of a forest, the best of the work done by seven-year-old children. To Prof. Dewey it seems to possess even "poetic feeling." It was the culminating product of a series of drawings expressing the child's ideas about the primitive conditions of social life. The first drawings were of the impossible sort, the trees the conventional telegraph poles of childhood, etc.

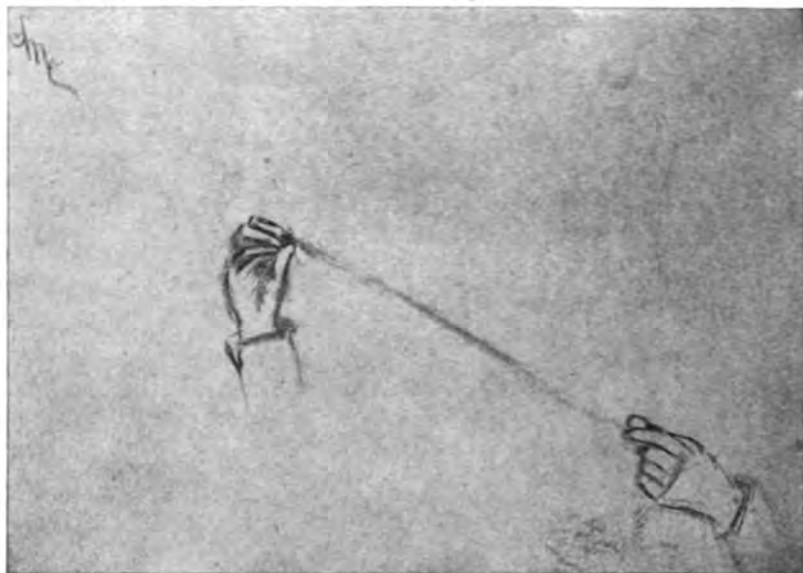


SEVEN-YEAR-OLD CHILD'S DRAWING OF A FOREST.

But the child was not allowed to indulge his instinct; he was called upon to exercise it. His attention was called to actual trees, and from his observation he was led to modify his original artistic expression. In the same manner the language instinct is controlled and directed. Then comes the instinct of making, or the constructing impulse. Out of the communicating and constructive instincts grows the art instinct. Of this an instance is given in connexion with the study of primitive spinning and carding, during which one of the children, eleven years of age, made the appended illustration of two hands engaged in drawing out wool for spinning (see p. 568).

The four instincts or interests mentioned, the interest in conversation, or communication, in inquiry, in making things, and in artistic expression, are called the "natural resources, the uninvested capital, upon the exercise of which depends

the active growth of the child." One example: Children are interested in the world of things mainly in its connexion with people; their interests are to a large extent identical with those of primitive life. The child's mind naturally recurs to the typical activities of primitive peoples. The boy builds caves and huts, hunts with bows and arrows and spears. Some of the work planned in the school for seven-year-old children, utilises this interest so as to make it a means of seeing the progress of the human race. Out of the connected study of primitive weapons grew some concrete lessons in mineralogy; out of the study of the iron age grew experimental lessons in metallurgy, etc. The result has justified completely to Prof. Dewey's mind "the conviction that children, in a year of such work (of five hours a week altogether), get indefinitely more acquainted with facts of science, geography, and anthropology than they get where information is the professed end



ELEVEN-YEAR-OLD CHILD'S DRAWING OF HANDS SPINNING.

and object, where they are simply set to learning facts in fixed lessons." Similar results have been obtained in connexion with the language work.

Such are the leading conceptions of the University Elementary School as it is called, affiliated with the University of Chicago. The school has been in existence four years, and the reader will find appended to the book above mentioned a supplement giving the details of the organisation of the institution. The school may be seen in its actual working, and persons skeptical as to the possibility of its realising in practice theories which ring with such resonant quality on paper, may personally convince themselves of the success or failure of the project. Here the key to the whole situation lies. The ideas which underlie the plan are neither unique nor novel, and their realisation as an educational system has been hitherto prevented partly by fear of their impracticability on a large scale, partly by the lack of qualified and sympathetic teachers, but perhaps most of all by the lack of endowment.

The plan is an expensive one. Human beings, too, are sluggish, logged with social inertia. Intelligence, constantly administered and applied on the gigantic scale required by rational schemes of instruction for entire nations, seems humanly impossible. From sheer exhaustion, reason drops into routine: it is a biological law. The new methods, whatever their value, grow old, stiff, and rheumatic, even as our invaluable Kindergarten-system in some of its phases has now grown. And thus it seems that the *öffentliche Verdummungsanstalten*, or "institutions for the stupidification of the public," as they have been classically termed, will always remain with us as a sort of divine necessity, and harmonising with the popular demand more than some enlightened educators seem to be aware of. It is in this mountainous mass of dough that the school of Prof. Dewey will be a leaven, and we hope in the interests of advancing civilisation, that the expectations entertained of it will be there or elsewhere fully realised.

T. J. McCORMACK.

NIRVANA.

From the German of E. ECKSTEIN, by HUGO ANDRIESEN.

This is the silent, slumbering lake,
The source of life and its treasures,
Of life with its tear-bedewéd ache,
And its fleeting joys and pleasures.

All dream-born bliss and mundane pain
A phantom existence created,
Into nothingness return again
What from nothingness emanated.

The trembling, quivering rays of light
In icy embrace are lying;
The eternal gods sink into night,
The solar globes are dying.

All perish,—even this episode,—
Sere will be what now looks vernal:—
Through infinite space resounds the ode,
The Song of Death Eternal!

THE MAHÂYÂNA AND ITS FIRST EXPOUNDER AÇVAGHOSHA.

Buddhism is divided into two great churches—the Mahâyâna and the Hīnayâna i. e., the large vehicle of salvation and the small vehicle. The Mahâyâna prevails over the entire North—Nepaul, Thibet, China, and Japan, and the Hīnayâna is established in the South—Ceylon, Siam, and Burmah. Western scholars generally consider the Hīnayâna as the original and pure Buddhism, and look upon the Mahâyâna as a later development in which Buddhism has been adulterated and is mixed with foreign elements. But this view cannot be upheld, and is naturally objected to by Buddhists themselves, especially those who belong to the Mahâyâna church.

While the name Mahāyāna, in contradistinction to Hīnayāna, seems to have come into vogue at the time of Nāgārjuna and Āryadeva, it was used in quite a different sense before that time; and, besides, we have certain evidence that its principles date back to the days of Buddha. At the time of Aṣvaghosha and even long before him, this term was adopted by progressive Buddhists to designate the highest being or perfect knowledge, of which all sentient beings are uniformly possessed, and on which they can safely cross over the tempestuous ocean of birth and death.

Aṣvaghosha, the great Buddhist philosopher, lived presumably during the first part of the first century of the Christian era. Though coming several centuries after Buddha, he was the St. John and St. Paul of Buddhism, combined. He systematised Buddhist doctrines, and wrote not only a Buddhist gospel, the *Buddha-caritā*, but also philosophical treatises, discourses, and hymns. Among them, one of paramount importance to the scholars of the Mahāyāna is *The Awakening of Faith* or the *Mahāyāna-śraddhotpāda-śāstra*.

This religio-philosophical treatise is in a word a condensation of the voluminous Sūtras that existed in Aṣvaghosha's time, such as the *Vajracchedikā*, *Sukhāvatt-vyūha*, *Cṛtmālā*, *Laṅkāvatāra*, *Saddharma-puṇḍarīka*, etc.; and almost all the Mahāyānist thoughts that developed later in their full significance are traceable in this writing of Aṣvaghosha. The latter, it is true, is a new departure, and betrays in some places the author's attempt to absorb and assimilate all the religio-philosophical doctrines then existing in the body of Buddhism; but it is after all a natural development from Buddha's conception of life and the world.

It is a great pity that we can now study this significant work only in its Chinese version, for its original Sanskrit has long been lost to the world. Samuel Beal, an authority on Chinese and Mahāyāna Buddhism, has endeavored in his *Buddhism in China* to give some account of Aṣvaghosha's doctrines, but he has erred in doing so, because of his insufficient acquaintance with his author's writings. Even Wassiljew, owing to his incomplete knowledge of Aṣvaghosha, has not escaped making blunders in his accounts of Mahāyānism.

But fortunately we have now an English translation of this most important Mahāyāna book.¹ The translator, T. Suzuki, a Buddhist from Japan, in performing his task, has carefully compared the two Chinese versions made in the sixth and the eighth centuries of the Christian era, and taken pains in every way to render the meaning of the original intelligible to the Western reader. An introduction on the life of Aṣvaghosha and his place in the history of thought, a glossary, and many explanatory notes have been added. The work is adorned with a frontispiece illustrating the philosophical conception of the Mahāyāna prevalent in Northern Asia, —the same illustration that accompanies this note. All in all, it is confidently expected that it will serve Buddhist scholars as a trustworthy guide through the labyrinthine maze of Mahāyānist speculations.

And now to a characterisation of the Mahāyāna doctrine in general. It must be borne in mind that the names Mahāyāna and Hīnayāna were invented by supporters of the Mahāyāna, for the Buddhists of the Southern church never called their religion the Hīnayāna, or small vehicle. Nor is the difference so rigorously marked as it seems to be, according to the usual Western representations of Bud-

¹ *Aṣvaghosha's Discourse on the Awakening of Faith in the Mahāyāna*. Translated for the first time from the Chinese version by Teitaro Suzuki. Chicago: The Open Court Publishing Co.; London: Kegan Paul, Trench, Trübner & Co., Ltd. 1890. Pp., xiv, 160. Price, cloth, \$1.25 net.

dism. The main difference is this: That the ascetic elements are more emphasised among Southern Buddhists than among Northern Buddhists. Northern Buddhism endeavors to actualise the ideal of a world-religion that will help not only single thinkers, but great masses. Buddhist missionaries always availed themselves of every opportunity to point out the way of salvation. Being very broad, they admitted mythological elements, and have to a great extent assimilated the religious views of the Tibetans, the Chinese, and the Japanese. By adapting their religion to the conditions of the various countries, they succeeded in spreading Buddhism all over Asia, and changed the wild hordes of Mongolian robbers into peace-abiding and charity-loving nations.

There existed in Buddha's day various tendencies among his followers; some were severe, some more liberal, while still others were inclined to mysticism, and cherished the hope of working miracles by faith or prayer and incantation or other religious means. Buddha's position, it appears, was that of a peace-maker. He taught his own doctrines without resorting to persecution or oppression. While he preached that a layman who had freed his heart from clinging could attain Nirvāna, he did not directly prevent the ascetic from self-mortification. He only interfered when they overstepped the limit and became inhumanly cruel to themselves. He expressly allowed his followers to accept garments and to dress themselves in yellow robes given to them by the wealthy members of the laity; but he allowed those who continued the old usage of clothing themselves in cast-off rags collected from refuse and cemeteries, to continue their habits according to the narrowness of their conceptions, until this narrowness had given way to broader views.

The same holds good of Buddhist ethics in general. Buddha himself ate meat, and did not forbid his followers from doing the same, pointing out that not what enters the mouth makes a man unclean, but what comes out of it,—words that strongly remind one of the parallel passage in the New Testament.

Centuries passed, and, as was natural, the narrow conception of Buddhism was deemed the more holy one among the masses of the people, and thus the monkish method of attaining salvation gained the ascendancy. Representatives of this conviction held their councils and proclaimed themselves the only true followers of Buddha. Documents of this kind induced European scholars actually to regard them as such, and to look upon representatives of the Mahāyāna as an aberration from the original teachings of Buddha. The Mahāyāna school, however, retaliated. They proclaimed their doctrines as the only true Buddhism, calling their church the Mahāyāna, or the large vehicle of salvation, and characterising their more ascetic brethren, who limited all their efforts to saving their own selves, as the Hīnayāna, or the small vehicle of salvation. They enumerated seven great characteristics of the Mahāyāna, and insisted upon them as reasons why it was greater than the Hīnayāna.¹

The central idea of the Mahāyāna philosophy is a belief in the Dharmakāya by which is meant that all the suchness in the world (*bhūtatathatā*), all that constitutes the determining factors in the chains of cause and effect (commonly called natural laws by Western scientists) form one great system which is the personality of the Tathāgata, that is, the prototype of Buddha. But, of course, we must bear in mind that in the body of these natural laws the spiritual and moral laws are not only included, but are even deemed to be its paramount and significant features; and they are not a dead letter, but a living and all-effective presence. Sometimes

¹ Enumerated in the *Yogācārabhūmi-Sāstra*, *Abhidharmasamgrāha-Sāstra*, and the *Prāsa-nāryavācā-Sāstra*.

expressions are used to make us believe that this body of the good law is regarded as conscious, and it is called at the same time Samyaksambodhi, that is, the most perfect wisdom.

The material world, commonly regarded as the world of sin by adherents of the Hīnayāna, is no longer rejected as bad in itself; it is bad only in so far as it does not yet bear the stamp of the Tathāgata's wisdom.



Buddha.

Bodhisattva Samanta Bhadra,
Representing the principle
of particularity or
love.

Bodhisattva Mañjuśrī,
Representing the principle
of universality or
wisdom.

Ānanda.

Mahākāśyapa.

A TYPICAL REPRESENTATION OF THE MAHĀYĀNA FAITH.

There is a contrast between the particular and the universal; the particular is to be an exemplification of the universal, and if it is so, the former is as dignified as the latter. As soon as the particular attains to the universal and exemplifies the wisdom of universal law, it has attained to perfection, and a man of such disposition of heart is said to live in Nirvāṇa.

The philosophical conception of the Mahāyāna is illustrated in the accompanying picture which is found in Buddhist temples all over Northern Asia: We see Buddha enthroned as the Buddha of the good law; at his right side universality is enthroned on the lion, and is revered under the name Mañjuśrī; on the left side, particularity, called Samantabhadra, is seated on the elephant. The former represents wisdom and strength, the latter love and charity. Farther down, we see two historical figures—the two chief disciples of the Tathāgata; Ānanda stands under Samantabhadra, or particularity, representing the loving-kindness of Buddhism, and Kāśyapa, sometimes called Mahākāśyapa, the formulator of doctrines and the intellectual leader among Buddha's disciples, stands under Mañjuśrī, or universality.

The illustration is typical, and an outline-drawing of this conception is also printed as the frontispiece to the great edition of the Mahāyāna text in Chinese, which enthusiastic Japanese believers in Buddhism undertook in 1881-1884. It was painted by Somé Yūki, a Japanese artist, who executed the picture according to the traditional style, after patterns which visitors to Buddhist temples may remember having frequently seen in Buddhist sanctuaries. 5.

BOOK NOTICES.

Dr. Ferris Greenslet, Fellow in English in Columbia University, has recently published in attractive form a study of *Joseph Glanvill*, a prominent divine and publicist of the seventeenth century. Dr. Greenslet's book is the thesis which he presented for the degree of Doctor of Philosophy at Columbia University, and offers a readable, critical review of the development of English thought and letters in Glanvill's time. (New York: The Macmillan Co. 1900. Pages, xi, 235. Price, \$1.50.)

The latest issue of the Citizen's Library of Economics, Politics, and Sociology, edited by Prof. Richard T. Ely, is a discussion of *Economic Crises* by Prof. Edward D. Jones, of the University of Wisconsin. Professor Jones's definition of a crisis is that of a disturbance of the equilibrium between demand and supply, and he believes that a helpful view of the causes of crises may be obtained by arranging them according as they arise from the side of demand and supply. He studies the effect which the increased use of capital has upon crises, the relation of legislation to crises, the effects of crises upon the wage system, the periodicity of crises, and the psychology of crises. (New York and London: The Macmillan Co. 1900. Pages, 251. Price, \$1.25.)

Dr. John Bates Clark, Professor of Political Economy in Columbia University, is the author of a portly volume bearing the title *The Distribution of Wealth, A Theory of Wages, Interest and Profits*, the purpose of which is to show that the "distribution of the income of society is controlled by a natural law, and that this law, if it worked without friction, would give to every agent of production the amount of wealth which that agent creates." He claims to have discovered "a method by which the product of labor everywhere may be disentangled from the product of cooperating agents and separately identified." This is something for which both laborer and capitalist, each of whom deems himself unfairly rewarded

for his contributions to society, have been craving for millenniums. (New York and London: The Macmillan Co. 1899. Pages, xxviii, 445. Price, \$3.00.)

The Doubleday and McClure Co., of New York, are the publishers of Mr. Henry George's posthumous work, *The Science of Political Economy*. In 1891, after a lecturing tour through Australia and a trip around the world, Henry George set to work upon a primer of political economy which "was to set forth in direct, didactic form the main principles of what he conceived to be an exact and indisputable science, leaving controversy for a later and larger work." As he proceeded, he realised, however, the difficulty of making a simple statement of principles before having thoroughly canvassed the entire field, and he consequently changed his plan and presented the larger work first. In the words of his son, who has edited the posthumous volume now before us, it was the design of this work to "recast political economy and examine and explicate terminology as well as principles; and which, beginning at the beginning, should trace the rise and partial development of the science in the hands of its founders a century ago, and then show its gradual emasculation and at last abandonment by its professed teachers—accompanying this with an account of the extension of the science outside and independently of the schools, in the philosophy of the natural order now spreading over the world under the name of the single tax." Mr. Henry George died October 29 1897, during the mayoralty campaign in New York, in which he was a candidate and left his great work technically unfinished, though in its main essentials completed. We have not space here to enter upon an analysis of its contents. It is sufficient to say that the doctrines of his famous book, *Progress and Poverty*, are here presented in more systematic form and that this last work of the great economical thinker will find many close students and many enthusiastic admirers. The book contains a fine portrait of Mr. Henry George as a frontispiece. (Pages, xxxix, 545.)

A fair review of the history of the nineteenth century is given in Mr. Edmund Hamilton Sears's *Outline of Political Growth in the Nineteenth Century*. (New York and London: The Macmillan Co. 1900. Pages, xiii, 616. Price, \$3.00.) It is a little wooden and mechanical, both in style and conception, and savors more of a chronicle than of a history; but it offers just that panoramic survey of the main events of the nineteenth century which will serve the purposes of many people. The modern history of France, Italy, Spain, Portugal, Belgium, Austria, Russia, the Balkan states, Germany, Holland, Denmark, Iceland, Sweden, Norway, Switzerland, of Great Britain and her colonies, of the United States, of Spanish and Portuguese America, and even of such minor or outlying nations as San Marino, Andorra, Liberia, Haiti, Santo Domingo, Japan, India, and Siam, is here presented in epitome; brief statements of political and commercial statistics have not been omitted, and in every case the narrative has been brought down to the present year. A good bibliography of works recommended for further reading and study has been added.

The second volume of Dr. Elisha Gray's delightful *Talks on Science* has been issued. It treats of the sciences of energy and vibration, embracing sound, heat, light, and explosives. Dr. Gray's talks are quite simple in character, and not with-

out the zest of humor and personal charm. The title of the little book is *Nature's Miracles*. Both by its contents and its style, the volume is well calculated to dispel the popular belief in supernatural wonders. (New York: Fords, Howard & Hulbert. Pages, vi, 243. Price, 60 cents.)

An excellent book on the care and education of children has been recently written by Dr. Nathan Oppenheim, of New York, and published by the Macmillan Co. (Pages, 308.) Dr. Oppenheim is favorably known as the author of a work on the *Development of the Child*, which has been pronounced by competent critics to be an exceedingly helpful book. His present work begins with pre-natal culture, devotes several chapters to the baby's outfit and nursery, to its feeding, bathing, sleep, exercise, and clothing, to the habits of children, to the relations of parents to children, to the education of children, and to the treatment of defective children and of common diseases. The book is not technical in character, but rather on the order of plain and common-sense talks. At the same time, it is a product of the modern point of view, and as such is destined to exercise a very wholesome influence.

Readers of *The Open Court* will be pleased to learn that Dr. Moncure D Conway's *Life of Paine* has been translated into French and published by Plon-Nourrit & Co., 8 Rue Garancière, Paris. Some of Dr. Conway's articles on Paine appeared in *The Open Court*.

The latest number of the *Illustrated Catechisms* published in Germany by J. J. Weber, of Leipsic, is the second edition of the *Catechism of Psychology*, by Friedrich Kirchner. The author has taken an intermediary point of view with respect to the problems of psychology. He is neither the advocate of psychology without a soul nor the champion of the opposing theory. The results of anthropology and physiology have been employed to a considerable extent. The book is not properly speaking a catechism, but an attempt at popular exposition only. (Price, 3 marks.)

The World's Parliament of Religions was undoubtedly one of the most signal events of the century. Failure was prophesied for it, but success, brilliant in the extreme, was its issue. The secret of the marvellous unanimity displayed there and of the methods by which the representatives of all the World's Religions were induced to give to it their concurrence and aid, is best learned from the Addresses of Welcome delivered by the President, Mr. C. C. Bonney, to the Religious Denominational Congresses and now published in book form in the Religion of Science Library as a memorial of the wonderful events of the Columbian Year *World's Congress Addresses*. Chicago: The Open Court Pub. Co.; London: Kegan Paul, Trench, Trübner & Co., Ltd. 1900. Pages, 88. Price, paper, 15 cents (9d.).

Under the title *Introduction à la vie de l'esprit*, Dr. Léon Brunschvicg, Professor of Philosophy in the Lyceum of Rouen, has endeavored to render philosophy accessible to the public at large, at least so far as it is essential to life. All historical references and technical discussions have been avoided. The author believes that man carries within him an ideal of spiritual perfection which enables him to

construct independently within his own soul the true religion, which is the negation of all materialistic or practical faiths and is itself nothing less than the liberty or purity of the mind. (Paris: Félix Alcan, 108 Boulevard Saint-Germain. 1900. Pages, 175. Price, 2 fr. 50.)

NOTES.

The article on the "Boxers" in the present number of *The Open Court* is doubtless the most authoritative statement of the origin of the Chinese troubles that has yet been published. Dr. Candlin is a Christian missionary of wide Oriental experience, an authority on the Chinese language and literature, the author of the little book on *Chinese Fiction* published in our Religion of Science Library and has resided for many years in the remotest parts of the Flowery Kingdom. He has been latterly at Tong-shan, in the far north of China, which for some years past has been the seat of violent Boxer disturbances. He is therefore eminently qualified to speak upon this subject. His communication was sent to us from Nagasaki, the nearest Japanese seaport to China, and temporarily the American naval base in Chinese waters, to which he seems to have opportunely and safely withdrawn on the eve of the present outbreak.



THE THREE FATES.

From a Painting by Michael Angelo in the Gallery of the
Palazzo Pitti in Florence.

Frontispiece to The Open Court

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ON GREEK RELIGION AND MYTHOLOGY.

BY THE EDITOR.

THE DAUGHTERS OF ZEUS.

THE deeper philosophical significance of the Greek idea of God is only dimly foreshadowed in the mythology of Zeus, but is not as yet contained in it. Almost all the ideas that played a prom-



ATHENA.

Gem of Aspasio in Vienna.
(Eckhel, *Choix de pierres
gravées*, pl. XVIII.)



EUROPA ON THE BULL.¹

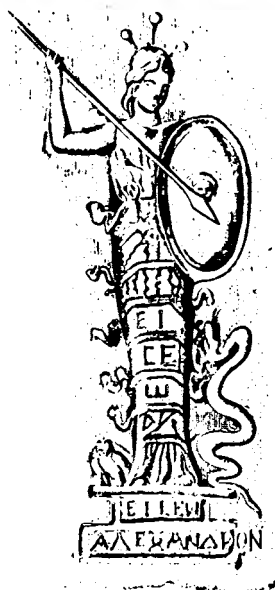
Ancient Cameo.

inent part in Greek religion, be they personifications of the powers of nature or the ideals of life, were represented as children of Zeus; and thus there are many legends of the various marriage relations of the great son of Kronos. We are told that Zeus was first wedded

¹ Europa, according to Hesiod a daughter of Okeanos and Tethys (*Theog.* 357), is a form of the earth-goddess, and Zeus abducted her in the shape of a bull. Her children are Minos and Rhadamanthys, the judges of Tartaros; or, by another version, Minos and Sarpedon.

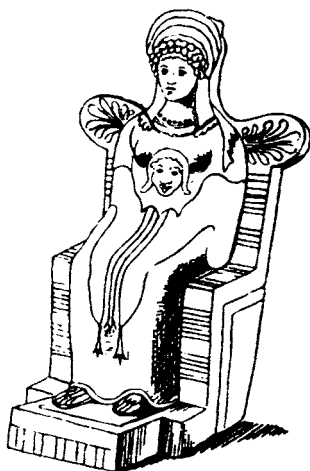
to Metis, i. e., wisdom, a daughter of Okeanos; but Moira, the goddess of fate,¹ warned him that the son of Metis would be mightier than his father, and so Zeus divorced himself from his first spouse, taking the infant which she was about to bear him, and hiding it in his own head until it had grown to maturity. When the time arrived, Pallas Athene, the goddess of science and art, fully dressed in armor, sprang forth from his forehead.

Having divorced himself from Metis, Zeus married Themis,



PALLADION.

The statue of Pallas Athena as protectress. (After Jahn, *De ant. Min. simulacris*, tab. 3. 7.)



PALLAS ATHENA² (Archaic).

After Stackelberg, *Gräber der Hell.*, plate 57.

the goddess of justice, whose daughters are Astræa, the goddess of the zodiac, and the Seasons or Horæ and the Fates.

¹ Moira, i. e., allotment or destiny, is an important conception in Greek mythology, but it has never been personified into a concrete deity. The same idea is represented sometimes by Nemesis (retribution), sometimes by Ker (doom). Zeus determines the decision of fate, as to the lives of Hector and Achilles, by consulting the balance and weighing the chances of both heroes in its scales. Adrastus (i. e., the inevitable) is a male representation of Nemesis in the sense of destiny and death, who is also called Νέμεσις Ἀδράστεια.

² The oldest statues of Pallas Athena show the goddess seated on a throne without armour and sometimes adorned with the Aegis (the Gorgon-head) on her breast. This type is frequently found in the ancient tombs at Athens. Cf. Roscher, *Lexikon der römischen und griechischen Mythologie*, I., pp. 687-688.

The number of the Seasons and their names vary. In Athens, two were worshipped under the names of Thallo (Budding Time)



PALLAS ATHENA CARRYING A NIKE IN HER HAND.
Discovered in 1880 near the Varvakeion Gymnasium at Athens.¹



Hephaestus² Zeus Nike Athena The three Fates

THE BIRTH OF ATHENA AND THE THREE FATES.

(After Schneider, *A. A. O.*, pl. I., 1.)

and Karpo (Harvest). They are frequently represented as three in number, and philosophical speculation describes them as up-

¹ This statue is an imitation of the famous statue of Phidias, which was built of ivory and gold, the eyes being precious stones. See *Die Athena Parthenos des Phidias* by Th. Schreiber, Leipsic, 1883, and Charles Waldstein, *Essays on the Art of Phidias*, Essay VIII.

² According to Apollod., I., 3, 6, Prometheus (not Hephaestus) acted as obstetrician to Zeus.



ATHENA WRITING.
Vase picture. (From *Élite céramogr.*, I., 77.)



THE THREE GRACES.
(Torso preserved in the Academy of Siena.)¹



ATHENA SLAYING A GIANT.
(From *Élite céramogr.*, I., 8.)

¹ The oldest Graces are always dressed and dancing or walking in step. The name of the artist who was the first to represent them naked and standing in a circle is not known, but the great number of copies preserved proves how very popular this conception became. The torso preserved in Siena is commonly regarded as the most beautiful copy of this group. (See p. 382.)

holders of the divine order under the names Eunomia (Good Law), Dike (Right), Eirene (Peace).

The nine Muses, the representatives of the arts and sciences, are said to be the daughters of Zeus and Mnemosyne (i. e., Mem-



ATHENA OF ALBANI.

(Colossal bust now in the Glyptothek at Munich. From a photograph.)

ory). They are Klio (History), Melpomene (Tragedy), Thalia (Comedy), Kalliope (Epic), Euterpe (Music), Polyhymnia (Song and Oratory), Erato (Love Lays), and Terpsichore (Dancing).

Grace and loveliness are represented in the three Graces, who are reputed to be daughters of Zeus and Eurynome, the goddess



THE PALLAS ATHENA OF VELLETRI.

Colossal statue now in the Louvre. (Braun, *Vorschule zur Kunstmythologie*, pl. 60.)

of universal law, a daughter of Okeanos. Their names are Aglaja, Euphrosyne, and Thalia.

The fates are Klotho, Lachesis, and Atropos. Klotho (i. e., the Spinner) starts the thread of life; Lachesis (the Receiver)



BIRTH OF PALLAS ATHENA.
(Gerhard, *Auserl. Vasenbilder*, I., 1.)



APOLLO MUSAGETES AND THE NINE MUSES.

Florentine Museum. (From Taylor, *Fleusinian and Bacchic Mysteries*, p. 10.)

measures its length, and Atropos (the Inevitable) cuts it off. It may be interesting to note in this connexion that Hesiod (i. e., the



EUTERPE.



POLYHYMNIA.



ERATO.



TERPSICHORE.

unknown author of the *Theogony*) forgets that, in the passage quoted in the last number of *The Open Court* he made the Fates daughters



URANIA.



KALLIOPE.



THALIA.



MELPOMENE.

of the Night. In giving their present genealogy, he speaks highly of the Fates, saying that "counselling Zeus gives them most honor," and that "they dispense good and evil to men."

HERA, THE WIFE OF ZEUS, AND HER CHILDREN.

The chief wife of Zeus is his sister Hera ; she is worshipped as the queen of heaven, as the virgin goddess, as the protectress of marriage, as the wife in all her dignity and nobility.



KLIO



MNEMOSYNE



THE THREE SEASONS (HORÆ).
(After a bas-relief on the *Ara-Borghese*.)

That Hera is at once virgin and mother is an idea which is quite common in mythology; it can be traced back to older sources



THE THREE GRACES OF SOCRATES.¹
Group at the entrance of the Acropolis.



HEAD OF HERA.
From a mural painting in Pompeii. (*B. D.*, I, 649.)

¹ None of the older representations of the Graces are naked. A group of the three Graces at the entrance to the Acropolis in Athens is said to have been sculptured by Socrates the philos-

and has been perpetuated in Christianity to the present day, where it found definite expression in the dogma of the virgin-mother of



THE NURSING MOTHER.

Supposed to be a statue of Hera. (Vatican. *B. D.*, I., 650.)

Christ, who in artistic representations is still depicted the same as Astarte, standing on a crescent with a crown of stars on her head.

opher (*Paus.*, I., 22, 8; IX., 35, 2; *Schol. Ar. Nubh.*, 773). Müller (*Arch.*, 8 336, 7) does not believe that the philosopher ever became an expert sculptor. Fragments found on the place prove that the group here reproduced, discovered in Rome and preserved in the Museo Chiaramonti in the Vatican, is an exact copy of the so-called Athenian Graces of Socrates.

Hera bore to Zeus, Hebe, the goddess of eternal youth ; Ares, the god of war ; and Hephæstos, the smith among the gods.

Aphrodite was married to Hephæstos, but some legends make her the wife of Ares, the god of war, which again produced the story of the jealousy of Hephæstos, as told by Homer.

Ares, according to Homer, fights on the side of the Trojans against the Greek and represents bellicosity and truculent courage



WEDDING OF ZEUS AND HERA.¹

Fresco of Pompeii.

rather than the art of warfare, the latter belonging to the domain of Pallas Athena.

Hephæstos, the god of the fiery forge, is described as lame, probably on account of the flickering of the flame which seems to ascend to the sky with a limping gait. Myth-lore, the gossip of the gods, offers another explanation. We are told that when the heavenly parents of Hephæstos were once quarrelling, the faithful

¹Formerly regarded as the wedding of Kronos with Rhea, but now (since Helbig's study of the picture in his *Wandgemälde*, N. 114) firmly established as the marriage of Zeus with Hera. Iris, the winged messenger of the gods, is leading the bride.



ARCHAIC ARTEMIS OF POMPEII.
Now in the Museum of Naples.



HEBE.
(See page 589.)



HEPHAESTOS ASSISTED BY THE CYCLOPS.
Sarcophagus relief. (From *Mus. Capit.*, 4, 25. Cf. Roscher,
Lex., I., pp. 2070 ff and II., p. 1679.)

son came to the aid of his mother, and father Zeus seizing the boy by one of his feet threw him out of a window of the divine palace



LETO FLEEING WITH HER CHILDREN, APOLLO AND ARTEMIS, FROM PYTHON, THE DRAGON.
Vase-picture in red figures in Nolan style. (From *Étude céramogr.*, II., 1.)

on Mount Olympus. Hephæstos, being a god, survived the fall but sprained his ankle and remained lame for the rest of his life.

* * *

While the children of Hera are important deities, there are other children of Zeus some of whom are superior to them in rank



ARES, COMMONLY CALLED MARS LUDOVISI

Supposed to be made either after an original by Scopas, or after the Apoxyomenos of Lysippos.¹

¹ For archæological details see Wieseler, *Alte Denkm.*, II., No. 250.

or at least are of greater significance. Their rise is mainly due to the parallelism of several similar myths with different names and a



ARCHAIC APOLLO.

Vase-picture. (*Mon. Inst.*, III., 44.)

varying local coloring; but their relation to the great father of gods and men is throughout the same.

As the life of Christ is the most essential part of Christianity,

because it reveals the nature of the Christian God, so the legends of the sons of Zeus contain the most essential conceptions of the religion of classical Greece, and these sons are all, each one in his own way, prototypes of Christ. All of them are saviours; they have come into life to reveal the truth, to bring liberty, to redeem



HEAD OF THE APOLLO BELVIDERE.
(After a photograph.)

mankind from sin, to atone for guilt, to ransom the weak from the powers of evil, to liberate those that are in the bondage of the body from the curse of materiality, to endow them with spiritual life, to rescue men from death and grant them immortality.

APOLLO AND ARTEMIS.

Leto (that is, the hidden one, the deity of the night) bore to Zeus on the Island of Delos, the manly Apollo, the god of the sun



THE APOLLO BELVIDERE.

and of poetry, and Artemis, the goddess of the moon and of the chase. This legend is not an isolated one. Light is frequently



APOLLO KITHARÆDES.

Vatican. (After the type created by Scopas.)¹

¹Augustus placed a statue of Apollo, playing the cithara, by Scopas, in the temple on the Palatinum. Nero imitated the costume of this statue in his own dress, and the Vatican statue, a copy of this Apollo Kitharædes, allows us to judge of the beauty of the lost original.

supposed to be a child of darkness. Thus we read in Goethe's Faust of :

" Finsterniss die sich das Licht gebär,
Das stolze Licht, das nun der Mutter Nacht,
Den alten Rang, den Raum ihr streitig macht."



THE VATICAN ARTEMIS OF EPHEBUS.
(After a photograph.)

But though the legend of Leto and her children in the form in which it is preserved in Greece can scarcely be ancient, it contains features which point back to prehistoric mythological ages and re-

mind one of the story preserved in the Revelation of St. John. chap. xii. Leto wanders from place to place, but finds no asylum



THE TORCH-BEARING ARTEMIS.
(Vatican.)

from the pursuing dragon Python, because people are afraid of the mighty god whom she will bear, until she reaches the place of

revelation (Delos), the rocky island in the sea, which formerly floated about upon the waters but now is made stationary.

Apollo is the solar deity of Greece. As such he represents light in every form. He is the revealer and the dispenser of oracles. His weapon is the bow, his instrument the lyre. As the god of poetry and music, he is Musagetes, the leader of the Muses. He



ARTEMIS, DISCOVERED IN DELOS.
(Collignon, *Myth. de la Grèce.*)



ARTEMIS EPHESIA.
Alabaster statue now in the museum at
Naples. (Roscher, *Lex.*, I., p. 588.)

is called Phœbos, the Bright One, Pæon the Healer, Pythios the slayer of the dragon Python. His birthday was celebrated in May on the island of Delos, and his most famous temple stood in Delphi. There a tripod was placed over a chasm from which vapors arose, and whenever the oracle was consulted the Delphic priestess, called

Pythia, was seated on the tripod. The vapors caused her to fall into a trance, and her utterances while she was in this condition were reduced to verses by the priests.

The Delphic priests as a rule were well informed and gave



ARTEMIS OF VERSAILLES.¹

Now in the Louvre. (Bouillon Musée, I., 20.)

their patrons good advice. The influence of the Delphic oracle over Greece was very great and undoubtedly beneficent.

Apollo's twin sister is Artemis, the goddess of the moon. She loves to roam through the forests and is the protectress of the

¹ Found in Hadrian's Villa near Tibur.



ARTEMIS.

The winged deity holding dominion over the animal world.¹

ACTÆON SARCOPHAGUS.²

Found in the neighborhood of Rome, now in the Louvre.

Clarac Musée, pl. 113-115.

¹ Fragment of the François vase. (*Mon. Inst.*, IV., 58.) This type of Artemis is pre-Hellenic and reminds us strongly of similar Assyrian monuments.

² In one scene Artemis is represented as taking a bath watched by Actæon, in the other the punishment of the indignant goddess is represented, Actæon being torn to pieces by his dogs. One side shows the preparations for the chase, the other the lamentations over the dead Actæon. The lid is decorated with sea-nymphs riding on hippocamps.

chase. Her main temple stood in Ephesus, on the coast of Asia Minor, where under Eastern influence she was worshipped like Astarte, as Mother Nature and the nurse of all beings.



THE LYSICRATES MONUMENT AT ATHENS.

The bas-relief represents the legend that Dionysos was once caught by Tyrrhenian pirates who were changed into dolphins and then driven into the sea by satyrs. Hence the dolphin was sacred to Dionysos.

The picture of the properly Greek Artemis in Athens and other cities of European Greece is different. There the goddess of the chaste moon is conceived as a virgin, whom at her request Zeus, her father, had granted the privilege that she should be at

liberty to remain forever unmarried. She punishes severely every trespass against decorum. She, as does also her brother Apollo



DIONYSOS BETWEEN TWO SATYRS.

Central scene in the Lysicrates monuments at Athens.



APOLLO ON THE TRIPOD, FLYING OVER THE OCEAN.

(Picture on a water-vessel in the Gregorian Museum of the Vatican.

Élite céramogr., II., pl. 6.)

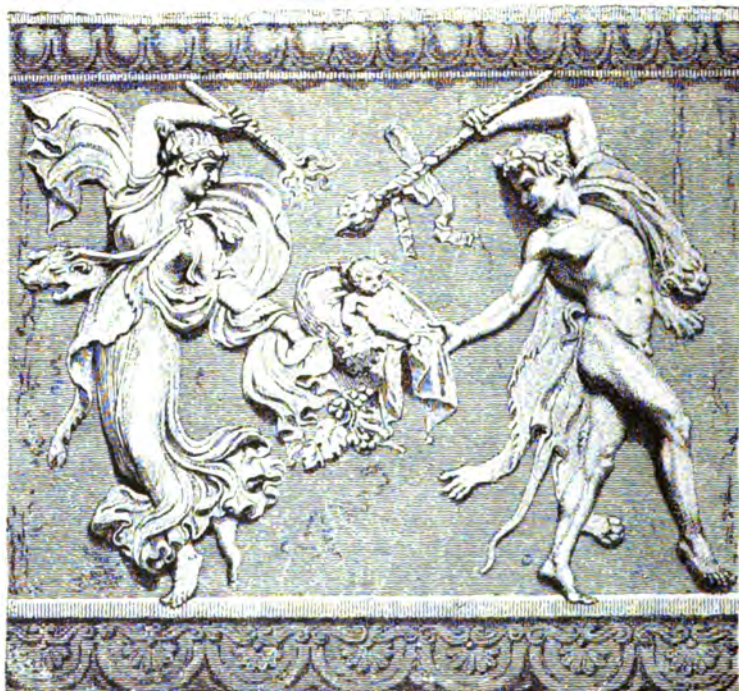
represents sudden death, especially if caused by heat in the days of the dog-star, the hot season of the year. There are contradic-

tory legends as to how she slays the hunter Orion and changes Actæon into a stag to be torn to pieces by his own hounds.

The stories of Iphigenia, and Orestes and Pleiades prove that the custom of offering human sacrifices to Artemis was not forgotten in historical times.

DIONYSOS.

By Semele, a form of the moon different from Artemis, Zeus begot Dionysos or Bacchus. Semele, anxious to see her lover in



DIONYSOS LIKNITES.

The Bacchic child in the winnowing basket. Terra-cotta relief.¹

all his divine glory, made Zeus promise on oath to fulfil her wish, but unable to bear the awful majesty of his presence, she died, leaving the care of her as yet unborn babe to his father. Zeus took the child (as he had taken Athene before) and, maturing it in his thigh, bore it a second time and had it reared by nymphs at Nysa under the superintendence of Seilenos.

Dionysos, the Liberator, the gay god of wine and salvation from the bondage of the body, stands next in dignity, but not less in

¹ After Combe, *Terracottas*, 24, 44. B. D., pl. XVIII.

importance, to Apollo. Trances and ecstasies, as well as dreams, were accepted as evidences of the spirituality of man's nature, and as wine produces an artificial ecstasy, the god of wine was worshipped as the saviour who delivers the soul from the bondage of



ARIADNE SLEEPING.¹
(Vatican. After a photograph.)



THE WEDDING-PARADE OF DIONYSOS AND ARIADNE.
(Sarcophagus in the Glyptothek at Munich.)

the body. It is noteworthy that the symbol of the vine is common to both Christianity and Greek paganism, and Christ, like Dionysos, makes his entry riding on an ass.

¹ Formerly regarded as a Cleopatra on account of the serpent which serves as a bracelet on her arm. Winckelmann proposed to regard the statue as a sleeping nymph, but by comparing the statue with a number of reliefs on sarcophagi Visconti succeeded in convincing archaeologists that we have here an Ariadne in the moment before she is surprised by Dionysos.

Dionysos dies and is resurrected. Under the name Zagreus he is torn to pieces and parts of his body are devoured by his murderers, the frenzied mænads.

The spouse of Dionysos is Ariadne, originally a goddess of spring, another form of Persephone. When through the influence of the Athenian drama the legend of Ariadne's deliverance through Theseus became firmly established, the ancient tradition was modified and so interpreted that Theseus at the instant of divine interference, commonly attributed to Athena, left Ariadne sleeping in Naxos where she awakens at the approach of Dionysos.



DIONYSOS SCUDDING OVER THE SEA.¹
(Gerhard, *Auserl. Vasenb.*, I., 49.)

The Dionysian Mysteries were celebrated by many, but few only were able to understand their significance. Plato said:

"There are many partakers of the sacred rites who bear the Thyrsus (the sacred staff of the god), but few are true Bacchi."²

Εἰσὶ δὲ, φασὶν ἢ περὶ τῶν τελετῶν, γαρήφικοι μὲν πολλοὶ, βάκχοι δὲ παῖρες.—Plato, *Phædo*, 69.

We have little positive knowledge about the Mysteries of Dionysos Bacchus, but we know that they implied a belief in the spirituality of the soul and a resurrection to renewed life.

[TO BE CONTINUED.]

¹ The picture was broken in the middle, the rent crossing the sail and the face of Dionysos.

² Βακχος in Greek means not only the God Dionysos, but also his followers, i. e., those who have been initiated into the Bacchic mysteries.

THE CURBING OF THE SPIRIT OF INQUIRY.

BY CARUS STERNE.

ON high authority we are told to day that there are a number of world-enigmas which the human mind has never solved and never will solve. If we also recognise these enigmas as apparently the most important and most worthy of solution, we are overcome for a moment by despondency, in which comes the suggestion: forsake the hopeless path of investigation; be content; believe in what the Church offers you as irrefutable and certain truth, and be happy in your ignorance. Nowhere is the inscription over the gates of Dante's Inferno, "All hope abandon ye who enter here," more appropriate than over the portal of the proud temple of philosophy.

For such discouragement there is but one remedy: the study of the natural sciences in their historical development, a retrospect from their present attainments to their beginnings; not because "such splendid progress we have made," but because we can now for the first time fully appreciate how much we have been expected to accept on faith as irrefutable truth, and recognise under what enormous difficulties we have been compelled to labor in gaining the modest store of knowledge which constitutes the present glory of the race. It is as instructive as it is remarkable that those who were the first to propose giving up the Sisyphean task of investigation, have always been the least inclined to act accordingly. Thus it was, for instance, with Socrates, who liked to boast of his own ignorance, and who according to Xenophon called all foolish who labored to investigate natural laws and celestial phenomena. And yet he himself was never weary of learning, to the great displeasure of the populace, whose point of view is represented by Aristophanes who pictures Socrates seated in a basket high above

¹ Translated from the German by Prof. L. L. Jackson, State Normal School, Brockport, N. Y.

the heads of the people, discussing useless questions. Surely such occasional utterances will lead no one to include Socrates among those *beaux esprits* of whom Propertius says:

"None of these crave to know the inner truth of the cosmos,
Nor how from her radiant brother Luna deriveth her light;
Whether beyond the Styx extendeth the span of existence,
Nor whether the thunder-bolt with deliberate purpose is aimed."

Such reflexions on the inadequacy of human understanding have arisen inevitably whenever reason and growing knowledge have conflicted with a system of religious views which had originated in earlier times and been regarded as final. Even Cicero in his dissertation *De deorum natura* has his academician, Balbus, condemn in a similar way the Danæan gifts of the human understanding and the misleading speculations of philosophy, just as the Apostle Paul a hundred years later did from his point of view.

"Everything," says Balbus, "goes to show that quite as much evil as good is accomplished through reason; the good by few men and rarely, the evil by most men and often; so that it were actually better had the gods denied men reason altogether, since they are constrained to combine with it so much evil. Wine is seldom beneficial to the sick, and generally injurious, so that it is safer not to give it at all than to risk life in the uncertain hope that it may be useful. Just so I am convinced that to have withheld from the human race altogether that activity, keenness, and precision of thought called reason would have been better than to give it in the abundant measure which is so destructive to most people and useful to very few."

Now if Cicero, who was tolerably free from religious prejudices, expressed himself in this way, how can we blame the teachers of Christianity if they occasionally inveighed against the philosophical productions of human reason which they could not harmonise with Scriptural accounts. "Beware lest any man spoil you through philosophy and vain deceit," wrote Paul to the Colossians when he saw that his arguments were no match for those of the philosophers at Athens and elsewhere. The Christian fathers accordingly felt forced to avoid strife, and to deny to unbelievers the right of research, asserting that they themselves possessed the truth. In this connexion there is nothing more instructive than the principles which Tertullian (died A. D. 220) advanced in his treatise *De Præscriptione Hæreticorum*, the heretics having appealed to the Scripture, "Seek and ye shall find." Even "if the heretics," said he, "were not enemies of the truth and we were not warned before-

hand to avoid them, how under any circumstances could we bring ourselves to dispute with men who themselves confess that they are still investigating? If they are still seeking for truth, it is surely because they have found nothing certain, and by their further investigation they merely show that they regard all previous conclusions as doubtful. . . . For us Christ has made all inquiry unnecessary, and the Gospel has made all search for truth superfluous. . . . With faith all seeking and finding cease. . . . No one is wise but the believer."

These utterances are more significant than the declarations of the same Church Father, spoken in wrath and half ironically, "I believe because it is absurd" (*credo quia absurdum*), and, "It is true because it is impossible," for they indicate the attitude which later apparently justified the Church Fathers in their opposition to the demands of investigators for a hearing. I say apparently, for they would really have been justified only in case they themselves had also given up the investigation and disingenuous interpretation of the Bible and placed childlike faith in every word as it stands. Then only would they have been justified in concluding, as Tertulian does in the same dissertation, "Hence we establish first of all this principle: heretics are not to be permitted to take part in any disputation concerning the Scriptures."

In sharp contrast to this Church Father's opinion that believing Christians possess the truth and need not investigate, is the fact that the Church Fathers never wearied of searching the Scriptures and vexing their poor brains in the attempt to comprehend the incomprehensible things contained therein, instead of simply believing them. What infinite labor and fathomless ingenuity did the theologians waste on the first chapter of the Bible alone, instead of straightway recognising with Faust the uselessness of such efforts, and furthermore they subject themselves to the reproach of carelessness, in creating difficulties where none existed. Thus, for example, John Chrysostom from the mere order of the words of the first verse of the Bible, "In the beginning God created heaven and earth," drew the conclusion that the creator did not begin the universe with a foundation, as men begin their houses, but began with the roof; or, as the Mansfeld priest, Simon Musæus, (died 1576), expressed it in his drastic way, "But God just reversed [man's method] and made first the sky for an arching roof, and left it swinging unsupported until on the third day he placed the earth beneath it."

Endless discussions were called forth by the circumstance that

in verses 3-5 the creation of light and of day and night occurs several days before the creation of the sun and the moon, of which it is said that they are to divide the day from the night and to number the days and years. With the limited intelligence of a savage who believes that the heavenly luminaries are daily kindled and extinguished, Basil the Great in his commentary on the six days of creation conjectured that the first days of the world, before the appearance of the sun, were divided into day and night by the alternate expansion and contraction to the vanishing-point of the original light. Fortunately a converted Neo-Platonist of the early Middle Ages, whose writings appeared in the sixth century over the name of Dionysius, the Areopagite, helped his fellow-believers out of their difficulty. Using certain ideas of Gregory of Nyssa, he devised the idea of original and formless light out of which, on the fourth day of creation, the sun was fashioned, but which by revolving about the earth had already produced day and night. It was a lucky thought which the mystics of the Middle Ages eagerly took up and expanded. With this interpretation there was no longer any difficulty in reading that the plants sprang out of the earth before the sun had been created, and this dogma gave St. Basil especial satisfaction, because it utterly confused the idolatrous sun-worshippers, who maintained that the sun should receive supreme worship, because all earthly life is developed by its rays.

The unquenchable thirst for investigation carried the interpreters of the Bible to the farthest extreme, and they could not be content until they had determined the hour and season when the world was created. Since on the very first days of creation herbs and trees sprang up from the new earth, Damascenus, Theodoret, Ambrose, Gregory of Nazianzus, and the majority of the earlier Church Fathers held that the world was doubtless created in the spring, the loveliest season of the year. And Petrus de Alliaco added in his *Imago Mundi* (A. D. 1410) the more precise time, claiming that the formless light, as well as the sun itself, was created when at zenith in the sign of Aries, that is on a March noon. Concerning the moon Ephraem Syrus had already expressed the opinion that it was created at full, as it appears on the fifteenth Nisan at the time of the vernal equinox. Scarcely a zealous theologian of later times who spoke or wrote concerning the creation ventured to pass over this weighty question without forming an opinion. Among the authoritative Catholic Churchmen Duns Scotus, Cajetan, Molina, and Cornelius a Lapide held the opinion that the world was created in the spring. Luther and Melanchthon besides most of

their followers accepted this view, as also did the Calvinists, Isaac Vossius and Scaliger. On the other hand there were distinguished Catholic scholars who advocated just as ardently the autumn; among these were Arias Montanus, the editor of the Antwerp Polyglot Bible, Pererius, and Père Mersenne. Among the followers of Luther the view was held by Calvisius, the famous chronologist of Leipsic. Their reason was that the trees of Paradise instead of bursting into bud and blossom, immediately after their creation had borne fruit, and Hogel, rector of Gera, figured it out that God had begun the work of creation on the evening of October 26th. Gerhard Mercator, the famous geographer, advanced a third view, that the creation took place in mid-summer, but he seems to have secured only a meagre following.

From all of this we see that the theologians were not by any means so hostile to the investigation of nature as they are often represented to be, and as they must needs have been had they held Tertullian's views. While in the above-mentioned questions it mattered little which side one took, yet there were more serious subjects on which it was not safe to have a different opinion from that of the leaders and rulers of the day. We will pass by entirely in this connexion theological and even purely philosophical questions, as, for example, whether the earth was created out of nothing, and confine ourselves altogether to purely physical things in order to show how quickly rational thought was suppressed on the authority of a document which reflects the far from imposing scientific knowledge of the Jewish scholars of the fifth century B. C. Furthermore, views which do not appear in the Bible at all, nay, are not even hinted at, were read into it and embodied in established articles of faith merely because it seemed to certain theologians that certain passages admitted of one and only one definite interpretation. Not only the authors but also the expounders of the Bible came to be considered inspired.

Such a notion could not fail to lead to strange conclusions. In the first verse of the Bible, the all-encompassing sky is mentioned, and very naturally, before the earth, but the author certainly did not dream of interpreters so childish as to compare the creation of the world with the building of a house and say that it was begun at the roof. Familiar and universal expressions, used only in a figurative sense, such as the four quarters of the earth, the four winds and the four corners of the earth, because they had by chance found their way into the Bible, were forced to serve as proof that the earth has four corners, and cannot therefore be a

sphere. Popular notions which reflect, the world over, the immediate perceptions of the senses, and consequently found expression also in the Bible, for instance that of the apparent motion of the sun about the earth, were thought by this fact to have become indisputable evidence that the earth actually remains firm and immovable in the center of the sun's plane. Doubtless the worst of it all was that the opinions, which the Church teachers with their limited understanding of natural science had expressed concerning the uncertain meaning of certain Scripture passages, were afterwards pronounced to be as unimpeachable as the Bible text itself; and that consequently it became the most dangerous heresy to believe in the existence of the antipodes, in opposition to the opinion of St. Lactantius, to believe that death is the natural end of life, in the face of the opinion of St. Augustine, or to believe that the earth moves about the sun, in opposition to the conviction of the entire body of Church Fathers.

The significant feature of the whole situation is that the Church was endeavoring to establish for its schools a fixed system of doctrine which should fetter reason in matters of belief by trying to exempt definitively from all future criticism not only those doctrines which might be regarded as derived from direct revelation, but also those resulting from human interpretation. When the Church had once spoken through a council or through the mouth of the Pope, no opposition based on reason, no hesitation or doubt based on better information as to the actual facts, was to be permitted; the "sacrifice of the intellect" was demanded without distinction of every one. The knowledge of natural phenomena, still so limited, was not considered a science which was to grow, but as a store from which all succeeding generations were to draw. This is the explanation of the remarkable fact that under the sway of Christianity the natural sciences made no progress worthy of mention for nearly fifteen hundred years, that all research was confined to the comparison and working over of old texts. Belief based on authority, which expected truth only in what had already been thought and written, was carried to dangerous excess, for it was considered heresy to search for additional truth in nature or in one's own understanding. But inasmuch as doubts and varying views occasionally arose and were fostered even among Christians, by the writings and expositions of heathen philosophers and investigators, there developed among Christian teachers a hatred and contempt for all investigation not emanating from the Church, which appear the less justifiable since the system of Church doc-

trine had been built up only by means of diligent investigation and ardent discussions of the most subtle questions.

In this spirit Eusebius, the father of Church history, the learned but uncritical bishop of Cæsarea (died 340), called the inquiry of heathen philosophy into the nature of the soul "a useless, misleading, and vain waste of time," adding: Christians whose thoughts turn toward higher and better things, think lightly of such studies, not so much from ignorance as from contempt for useless labor. Basil the Great, several decades later, gave his opinion concerning the worthlessness of science even more unequivocally: "Christians have something better to do than to investigate the utterly trivial question whether the earth is spherical, flat, cylindrical, or cup-shaped." We have already seen how profoundly ignorant he was, and that he preferred the barbarian's theory of the heavenly luminaries to all others.

The Christian fathers, most notorious for their lofty contempt of science are Lactantius (died 330), who on account of his polished language was called the Christian Cicero, and St. Augustine (died 430), both of whom were probably sometimes rebuked by their contemporaries on account of their blind zeal against the theory of the antipodes. The former relieved his mind in the treatise *Concerning False Science*, as follows: "To investigate the fundamental causes of natural things, or to try to learn whether the sun is as large as it looks, or whether it is many times as large as the whole earth, or whether the moon is spherical or hollow, whether the stars are fixed in the firmament or move freely through the air, what are the dimensions of the heavens themselves, or out of what material they are made, whether they are fixed and motionless or revolve with infinite velocity, how thick the earth is, and upon what foundation it is balanced or suspended,—to wish to settle all these things by disputation or speculation is like trying to give a complete description of a remote city, which one has never seen and knows only by name."

This judgment contains the false assumption that the ancient mathematicians and astronomers arrived at their conclusions concerning the size and distances of the heavenly bodies by guess only and not by exact observation and measurement. We shall later have occasion to compare it with the assurance with which Lactantius decided questions concerning which he had not even presumptive evidence. When St. Augustine in a similar strain speaks of the "horrible zeal of the surgeons, who are called anatomists" and thinks that they have discovered none of the mysteries of life,

"although they have dissected the bodies of the dead, and have even inhumanly probed into the bodies of the dying with knife in hand," we are reminded of the opposition to the vivisection of animals in our own day.



ST. AUGUSTINE.

(354-430.)

After a painting in the Uffizi Gallery.

Of course a complete exclusion of the opinions of heathen philosophers was the more difficult, because the principles of many philosophical schools were most excellently adapted to form the

foundation of the prospective ecclesiastical structure. Platonism particularly (introduced by Philo, the Jew, born 20 B. C.) was sponsor for certain New Testament dogmas; and Plato's notion of archetypes or "eternal ideas" (which were considered as real things present in the supernatural world of the Demiurge even before their embodiment in plant, animal, and human form) appealed the more to Augustine and other Church Fathers, since by means of these they could evade Origen's somewhat bold idea that God had created everything at once in one creative day, "in a trice," as Luther expressed it, and could base upon it all sorts of cunning subterfuges of a mediate creation or gradual embodiment of the archetypes, as, for example, in the case of those animals supposed to have sprung from the blood or decaying bodies of other animals. Neo-Platonism, with its ideas of ecstatic exaltation, intermediate beings, and emanations from the Godhead, was also not without important influence upon the doctrines of the new Church, although its pantheistic elements were for the time being excluded.

Somewhat later than Plato, and in a disconnected way, Aristotle acquired an influence upon the Church tenets, first by his cosmology, in the simplified form given it by Ptolemy, and afterwards through the other parts of his system for which Arabic and Jewish scholars served as interpreters and expounders. Despite the fact that the physics and metaphysics of Aristotle had been condemned by the Synod of Paris (1209), Albertus Magnus owed his extensive learning and his title, Doctor Universalis, chiefly to the study of Aristotle, and soon after his pupil, Thomas Aquinas, with open arms received the old heathen into the bosom of the one saving Church. Aristotle was soon considered the great light in the darkness, and even a very John, the forerunner of Christ on earth (*præcursor Christi in rebus naturalibus*). If we consider that in the cosmology of Aristotle, everything was arranged in accordance with design (the earth and man at the center of all things, the *ideas* of Plato no longer flitting about but still living innate within substance, the soul preceding the body, the idea, the form, and back of all terrestrial motion God as the primal and only immovable source of motion), then we can easily understand how Aristotle, soon after his re-discovery, inevitably became the favorite philosopher of the Church and the official philosopher of the Pope. We thus see how the present Pope, Leo XIII., could even dream for a moment of galvanising this philosophical corpse into life and setting him up in opposition to the wicked Darwin. Of course, the salty old pagan was thoroughly freshened and disinfected by Thomas Aquinas, but now

his authority re-established orthodox scholasticism, although under the assault of new ideas it did not long enjoy undiminished supremacy.



ARISTOTLE.

(384 B. C.—322 B. C.)

Bust of the statue of the Palace Spada in Rome.¹

The Church had unquestionably made a great stride forward in adopting the teachings of Aristotle, which after all were based upon the most careful observation and the keenest interpretation

¹ See the previous number of *The Open Court*.

of nature. But with this the Church considered that it had given all due consideration to earthly things, for had not Aristotle investigated all nature? Now he was to be cleaned from dust and put under a glass cover; no one was again to lay hand upon his reorganised system, which had been brought into the most beautiful harmony with the doctrines of the Church, for his works had been raised to a rank next to the Bible, as an almost equally authoritative source of knowledge. But the fresh breeze of the dawning Renaissance soon penetrated every crack and crevice of the system and hastened the gradual decay of the mummy.

[TO BE CONCLUDED.]

CERTAIN ASPECTS OF THE ELEUSINIAN PROBLEM.¹

BY THE REV. CHARLES JAMES WOOD.

I. PRIMITIVE RITES OF PURIFICATION.

THE Mysteries of Eleusis are among the few secrets of this world that men have never blabbed. We know somewhat of the outer form of the cultus. The ruins of the great hall of initiation (τελεστήριον) have been inspected,² and ancient writers recorded some notes of the ranks of membership, or degrees of progress in the occult learning. We know also how the society of Eleusis controlled the affairs, political and social, of all Greece. But the occult teachings and ceremonies of Eleusis were never divulged.

Greek dramas, the plays of Æschylos, Sophocles, Euripides, and Aristophanes, were written for the celebration at Athens of what was known as the Lesser Mysteries of Eleusis. The Lesser Mysteries were partly public, and the dramas presented six months later at the conclusion of the Greater Mysteries, echoed the Lesser Mysteries and concluded the rites. After initiation at Eleusis the Athenian returned home, and in concluding the ceremonies of his membership in the secret society he witnessed dramatic representations. Into the Greek theatre were gathered the uninitiated as well as the enlightened. Therefore, while the dramatic author would aim to impress upon the minds of the initiates some of the lessons which they had just before secretly learned, he would do so in a guarded way that he might not be guilty of revealing to the profane any of the secret elements of the Greater Mysteries. The penalty of this was death. It is reasonable therefore to turn to the Greek plays for some hints of the nature of the secret doctrines and liturgy of the Greater Mysteries of Eleusis.

¹ A paper read before the Classical Club of the University of Pennsylvania in 1897.

² Dyer, *The Gods in Greece*, Cap. V.

First of all let us define the function of the Eleusinian Mysteries in Greek social and religious life. The Eleusinian Mysteries constituted the Church of Attica, if not of all Greece. Its claims were arrogant, no less than this: *nulla salus extra ecclesiam*. This feeling is expressed in the Homeric *Hymn to Demeter*:

"Blest is he of mortal men who has beheld these; for he who is uninitiated and he who partakes not in these rites, have by no means the same fortune although both be dead, beneath the murky darkness."¹

Plutarch gives the later idea of the *opus operatum* theory of the effect of the initiation at Eleusis:

"When a man dies he goes through the same experiences as those who have their consciousness increased in the Mysteries. Thus in the terms *τελευτῶν* and *τελειοθῶν*, we have an exact correspondence, word to word and fact to fact. First of all there are wanderings and wearying journeyings and paths on which we look with suspicion, and that seem to have no end; then, before the end, every kind of terror, shuddering, trembling, sweating, stupor; but at last a marvellous light ~~strikes~~ out to meet us, pure spots and fair fields welcome us, with song and dance and the solemnities of sacred sounds and holy sights. In which state he who has already perfected himself in all things and received initiation, reaches his full freedom, and passing everywhere at his will, receives the crown and accomplishes his Mystery, in communion with the holy and pure, gazing down upon the unperfected multitude of the uninitiated who are still in life, wallowing in the deep mire and mist [of matter], and herded together, below him, abiding in misery from fear of death and want of faith in the blessedness of the soul-life. For you should know that the intercourse and conjunction of the soul with the body is contrary to nature."—*Fragment*, v, 9, Didot.

The rabbins of the school of Hillel were not more pharisaic; no close-communication Christian sect could be more arrogant. Yet, such is the character of religious secret brotherhoods anywhere in the world. There is a pleasure in the possession of knowledge, or rank, or power not generally distributed.

The association at Eleusis aimed to select the best men of Greece, and to teach them matters not suitable to the receptiveness of the common herd, truths too solemn and holy to risk profanation, ideas too spiritual for the books, doctrines too transcendental for clods to understand, and traditions which were at once incalculably ancient and belonged only to the descendants of heroes to learn. Later, foreigners and women were initiated, even slaves were admitted at public cost.² The Homeric *Hymn*³ says of Demeter as founder of the Mysteries at Eleusis:

"And she went to the law-administering kings, Triptolemus, and horse-goading Diocles, and the might of Eumolpus, and Celeus, leader of the people, and showed them the performance of her sacred rites, and she appointed her hallowed orgies for all, for Triptolemus, and Polyxenus, and, moreover, Diocles,—orgies which it is in no wise lawful to inquire into, or mention; for a mighty reverence of the gods restrains the voice."

¹ The outcome of this thought will appear in Epitaphs quoted later.

² Foucart, *Le culte de Pluton dans la religion hellénique*. Lenormant, *Cont. Rev.*, 1880.

³ Compiled about 600 B. C. of ancient materials.

The purpose of the Mysteries was ethical, and the motives spiritual. The association was a sort of Gnosticism, a Freemasonry, a Nagualism, a secret society of the most conservative spirit, clinging tenaciously to customs, and rites, and beliefs which progress was then rendering obsolete in the ordinary or public life of Greece.¹

The ideas and ceremonies which were thus being driven into the secret shades of Eleusis, there to be cherished as august and sacrosanct, were such religious observances as belonged to the psychic constitution of the people,—we might say of mankind at large, as I expect to show. Evolution had advanced the Greeks but had not entirely abolished the psychic basis of savage observances.² Therefore in hidden places and recondite ways these strange and ancestral customs survived,—as I expect to demonstrate: and the sanctuary of their survival was at Eleusis. Consequently the Eleusinian Mysteries were, accurately speaking, superstition, lurid smoke in the clear sky of Hellenic reasonableness. They were, in fine, the survival of certain religious beliefs and ceremonies that a dominant race and a dominating culture were driving out of common life, and Eleusis was not sole shrine of Greek mysteries.

The ancient folklore of the Hellenic tribes crystallised into Mystery-cults in several localities, of which Eleusis is the most notable. For a long period the rites must have been local in their acceptance, though germane to the springtide and the vintage or harvest festivals at other places. Hesiod speaks of the cult of Demeter at Eleusis (*Frag.* 201, Didot Ed.), but says nothing of any Mysteries. As late as the Persian war it was necessary to explain to a Spartan the meaning of an Eleusinian procession. (Herod., VIII., 65.)

But to return to our search after the secret of Eleusis.

The sixth book of Virgil's *Æneid* and the *Golden Ass* of Apuleius do not reveal the secret ceremonies at Eleusis. And it is of small import if the hierophants did actually cry *Konx om pax* (which corresponds to *ita missa est*) to the mystæ who were thus dismissed after having passed through the ceremonies of initiation. Neither did the Christian fathers, St. Hippolytos for instance, reveal any esoteric wisdom of Eleusis. What we are to know of the

¹ Mr. Dyer, whose opinion in his text is different, virtually concedes the truth of my position *Gods in Greece*, p. 194, note.

² Foucart, *Recherches sur l'origine et la nature des mystères d'Eleusis*, mentions Arcadia and several Ionian islands as early homes of one or another feature of the cult of Eleusis, but M. Foucart thinks that Egypt was the ultimate source of the Eleusinian Mysteries. Cf. Gerhardt, *Taf. I., Bilderkreis von Eleusis*.

character of these ceremonies we must acquire by inference and by analogy.

The theory of the mode of the development of the Mysteries at Eleusis set forth by M. Lenormant has been generally accepted. Provisionally let us assume it for a working plan.

M. Lenormant says that the Eleusinian Mysteries passed through three stages of growth. Of these stages, the first corresponds to the Homeric *Hymn to Demeter*. For that poem was the earliest attempt known to us to formulate a myth to account for the Eleusinian rites. At the same time it follows that both the hymn and the rite at Eleusis prove that an age had arrived when the origin of these customs had been forgotten.

To resume Lenormant's theory: At this first stage the chief point of the Mysteries was the celebration of the phenomena of vegetal life, under the myth of Persephone.¹ The primitive form of this cult was simply the corn festival. In the sacred shrines of the Zuni Indians the holiest object, as Mr. Cushing told me, is an ear of corn. Demeter is the Corn-Mother. We find folklore full of her. The sacred corn-dances of our American aborigines are representative of the same idea. The Corn-Mother or Rye-Woman continues to be a personage of importance in Germany of the peasant. In the markets of York the country people expose for sale about Easter time small cakes baked in the form of a woman. The Harvest Queen in English folk-custom is another form of the Proserpina myth, a form not borrowed but autochthonous.

The myth of Proserpina appears in a Christianised form in the Sicilian popular tale of Spadonia who baked bread every day and sent it to the souls in purgatory. The tale includes a description of the ghost land. A similar custom of eating the god, of baked bread, occurred in the ancient Mexican cults. Both Creuzer and Frazer will afford many other analogues.²

Associated with the Proserpina myths of vegetal life have always been some primitive notions of purification by fire. The Old Testament writings refer many times to the custom. In the Eleusinian legend it seems that this was figured by the fire baptism of Demophoon. Several of the plays allude to this, often obscurely.

¹ St. Hippolytus, *Refutation of all Heresies*, V., 115, tells us: "When the Athenians are celebrating the Mysteries of Eleusis, as the grand and marvellous and altogether perfect spectacle to the spectators, in silence, they exhibited a harvested ear of wheat."

² Crane's *Italian Popular Tales*, p. 367. An interesting Teutonic analogue to the Proserpine myth may be found at page 295, Simrock, *Deutsche Mythologie*. The immemorial sowing and reaping rites of the Malay's may be believed to throw some light upon the unrevealed ceremonies of Eleusis. Cf. Skeat, *Malay Magic*, pp. 227, 239 and elsewhere.

The peasantry of Europe long preserved this notion by building fires about their fields and then jumping through the fires. In my part of the country children still observe the custom "for good luck!"

It seems probable that at this earlier state of the Eleusinian Mysteries the Dionysiac rites—which are symbolised by blood and fire—fire and the drink of the gods, constituted a small or no element at all, of the liturgy and theology of Eleusis.¹ As the Greek theatre was a consequence of the Dionysia, the Greek drama corresponds to a later stage of development. The Proserpina element continued to play its part, that of a glorified farmers' festival, down to the end.

The second stage of the evolution of the Mysteries at Eleusis is marked, as I have intimated, by an attraction and absorption of such folklore and special common customs of a religious character belonging to the vintage, as the intellectual and social advance of the people was rendering archaic and obsolescent. So the Mysteries of Eleusis became a Dead Sea of folkfaith and folklore, of prehistoric ceremonies and primitive religious notions. No doubt the hierophants and mystagogues of Eleusis did develop parallel with this folklore some abstruse, transcendental, and rationalised theology,—just as the Gnosticism of the early Church gathered up the occultism, theology, and magic of a dying age and mixed it with abstruse and metaphysical speculations, also as Freemasonry at the present day conserves obsolete symbols and forgotten ceremonies of extinct religions. In addition to this, the psychic development of the Greek tribes had left behind it much crude material not yet assimilated, and so most of what was intense and orgiastic, similar to the hysteria of a religious revival and fierce nervousness of the Salvation Army, flowed down into Eleusis and was there conserved.

With the third stage which began about the time of Alexander the Great, we shall not now concern ourselves. Merely let me observe that Mr. Percy Gardner must surely be wrong in assigning the incorporation of the myth of Dionysos Zagreus to this third period. The topic of that myth is primitive and psychically aboriginal.

We now turn our attention to the first stage of the growth of Eleusinian Mysteries. Here we need be at no painful effort to infer their nature. In the myth of Demeter and Persephone we have the universal mythos of germination and fruitage.

In the Homeric *Hymn to Demeter*, Rhea says to her daughter :

¹ Cf. A. Kühn, *Feur und die Göttertrinken*.

"'Hither, child, loud-thundering, far-seeing Jove calls thee to come to the tribes of the gods. . . . And he has consented that thy daughter shall pass the third part of the rolling year beneath the murky darkness, but the other two with thee and the other immortals . . . but come, child, and obey. Nor be thou immoderately wrathful against the dark-clouded son of Saturn. But straightway increase the life-bearing fruit for men.'

"Thus spoke she, nor did well-crowned Demeter disobey; but she straightway sent forth the fruit from the rich-soiled fields. And all the wide earth was weighted down with leaves and flowers."

Back of this myth lies the folklore of a world. It is not necessary to suppose that this element of Eleusis was imported from Syria, or Egypt, or Babylon. Such theories are erudite but superfluous. The sacred dances of negroes on the banks of the Congo, the whirling dervishes, the ceremonial circuit of the Mayan and of the Aztec tribes (if we rightly decipher their grotesque and complicated art), the spring festivals and harvest homes of India, China, and England, the old Hindu cults such as we find in the Rig Veda, —all these set forth in dramatic-lyric fashion the substantial identity of the folkfaith of "all peoples who on earth do dwell," and that folkfaith is the substance of the Mysteries of Eleusis.

The solar course which has its simplest form of dramatisation in the ceremonial circuit of the North American Indian, and in the *Pradikshna* of the Hindu, had their later and more highly developed form in the dorian, pyrric, gymnopædic, and hyperchematic dances of the Greeks, and in the evolution of the chorus of a Greek play.

Perhaps these various dances, answering to the modes of music, and later to the measures of poetry, were in the beginning but the primitive steps and figures of the war dance, the serpent dance, the torch dance, the corn dance, and so on, which in the secrecy of Eleusis continued to be performed with a half belief in their magic efficacy. From the secret rites they passed into the open drama. Besides, the ceremonial circuit had not only the virtue of propitiating the gods of the world quarters, and thus ensuring good harvests, good health, and good luck in games of chance, but, connected with these dances at the beginning, there was a general attempt to fix divisions of time and to establish a kalendar.

Rome does not appear to have transferred her primitive and archaic ceremonies altogether to secret observance. The Salii and the Arval brothers were secret societies, but their ceremonies together with the Lupercalia, continued to be publicly performed.

The sword dance early dropped out of Hebrew worship. In the fourth chapter of Genesis there is a relic of a "song of the sword" interpellated. The sacred dance among the Hebrews continued probably throughout their history. The Feast of Purim was

celebrated with an orgiastic torch dance. Miriam, the sister of Moses, is said to have taken a timbrel and with her attendant maidens to have celebrated the passage of the Red Sea by a sacred song and dance. David, removing his voluminous robes, clad himself in an ephod and danced mightily before the ark in a public procession through the streets. Probably there was always in the Jewish temple what would answer to a ballet. These girls took regular part in the services of the sanctuary and in the sacred processions. Allusion is made to this ritual in one of the psalms:

"It is well seen how thou, O Lord, goest [in the procession], the singers go before, the minstrels follow after, in the midst are the damsels playing on the timbrels."

The play of *Thesmaphoria* has for a theme this women's dance.

It is at this point that we may profitably begin to scrutinise the Greek plays for hints of doctrines and ritual of the Mysteries.

Two pressing questions, which even primitive peoples endeavor to answer, arise here. First, what are the rights of property, and how settle boundaries in time and space? Allusions to this as a most holy institution may be found in *Philoctetes*, 722; *Ajax*, 602; *Antigone*, 608; *Trachiniae*, 648, and elsewhere.

We read in *Agamemnon*, 507:

"Ye do well to reverence him [Agamemnon] who hath levelled Troy with the spade of equity—dispensing Zeus (τοῦ δικηφόρου Διός)—the spade with which the earth's bounds are measured off" (μακίλλῳ, τῇ κατεργασταί πεδόν).

The second question is the same that occupied the writers of the Book of Job, namely, Does benevolence or malevolence rule the world? Are the gods kind or malicious? Is God stronger than the Devil? Does good or evil dominate in the constitution of things? Is the world an environment suitable and fit for man or no? The one question in several forms. Important to material interests as was the first problem, the second absorbed most of the interest of men, and the tragedies of Æschylos, Sophocles, and Euripides are devoted to the solution of the great spiritual problem,—the problem of evil. Turning to the scenic poetry, I note how the *Choëphoræ*, *Agamemnon*, *Antigone*, and *Philoctetes* make such allusions as appear in these citations:

"Clytæmnestra: Fate, my son, had somewhat to do with these things.

"Orestes: Nay, this very destiny hath Fate ordained" (ἐπέσυνεν).

—*Choëphoræ*, 890.

ἀλλ', ὦ μεγάλαι Μοῖραι, Διόθεν τῇδε τελευτᾶν,
ἢ τὸ δίκαιον μεταβαίνει.

"But, O mighty fates, do ye accomplish this according to Zeus, in whatsoever way is just."—*Choëphoræ*, 297.

τρόμος μ' ὑφέρπει κλύουσιν εἰγμάτων
τὸ μόρσιμον μένει πάλαι,
εὐχομένοις δ' ἂν ἔλθοι.

"Trembling comes upon me when I hear boastings. That which is fated abideth of old; but to those who pray may it come.—*Choëphoræ*, 450.

"I call upon the gods, who preside over strivings (*αγωνίων θίμης*), and especially upon Hermes, my Redeemer,¹ the Beloved Herald, the Holy One of Her-alds."—*Agamemnon*, 495.

"Zeus, the Mighty, sent the sons of Atreus against Paris,—Zeus, the avenger of outraged hospitality" (*Ζεὺς ξένιος*).—*Agamemnon*, 61.

"For a basis of justice is set up, and on it Fate forges the swords she makes (for the punishment of transgressors), and offspring upon offspring of former murders (wherewith they are defiled) doth she introduce into houses: the Fury, whose deep counsels become known in time, aims and executes the (heaven-sent) curse."—*Choëphoræ*, 629.

Compare Isaiah xxx. 33:

"For Tophet is ordained of old. . . . He hath made it deep and large, the pile thereof is fire and wood; the breath of the Lord, like a stream of brimstone, doth kindle it."

Says the *Philoctetes* of Sophocles (446-452) on hearing that Thersites was still alive:

"Be it so,—since naught of evil perisheth, so well do the divine ones fence it round; yea, how gleefully they do turn back from Hades, the cunning and the crafty, and send below the just and the good! How shall I dispose of such facts as these, how offer praise, while even in my prayers to the gods I find the gods to be evil?"

These cardinal doctrines of Eleusis teach that this is the best possible world, which is the same as to say, "Justice rules," God is King. Of the many lines of Greek plays that might be cited to this point, I quote but one passage, typical if difficult. It runs from line 51 to line 57 of the *Choëphoræ* and says:

"Prosperity among men is god and more than god. But if the swift sweep of Justice watches over some in broad daylight, yet others punishment awaits wearing away the time, delaying in the middle way of darkness, these impracticable night holds fast."

These words remind me of 1 Tim. v. 24:

"Some men's sins are open beforehand going before to judgment, and some men they follow after. Likewise also the good works of some are manifest beforehand, and they that are otherwise cannot be hid."

There emerge here and there through the language of the Greek plays certain and clear allusions to ideas which are involved in the chief element of all dramatic Mysteries, i. e., the sacred dances, of every primitive tribe from Alaska to Lake Van, from Greece to Guatemala. I mean such elements as: (1) Reverence for the gods of the world-quarters (which from the beginning has made the cross a holy symbol); (2) Conjectures touching the origin of the world; (3) Beliefs about the origin of the tribe or of mankind; and (4) Guesses about what will happen to man after death.

¹ Τιμόρον Ἑρμῆν. See Hebrew Goel. Job. xix. 25, Ruth, Judges, pass.

For instance, the *Choëphoræ*, 314-316, 343-350, 503, insists upon human consciousness after death:

"You, the ferocious maw of the fire devours not the consciousness of the dead, but back of it shines the meadow."—*Choëphoræ*, 314. (Cf. Plutarch, cited above.)

"With thine own dead there in peace thou, as an august prince, art preëminent in the under world, hierarch of the greatest earth-lords there, for king thou wert whilst ~~thou~~ lived, over those who in their lands administered what fate appointed them, even the scepter which claims the submission of mortals."—*Choëphoræ*, 343-350.

Certain knowledge of immortality was sought in the mysteries. Verbal instruction alone was not adequate. Orgiastic or frenzied dances took place, because they induced trance and vision. Allusions are common to these exciting dances which resemble the dance by which the Mongolian shaman seeks ecstasy and clairvoyance. Akin to this was the dancing mania of the Middle Ages, the holy dance of Eisenach, the convulsionaries of St. Médard and the early phenomena of the spiritual life of the Shakers and Quakers. In primitive sacred mysteries another common method of gaining a vision into the unseen world and of having revelations, is by means of some narcotic or spirituous drink. The very words spirit, spirituous, embalm the primitive idea. Intoxication is regarded by primitive people as inspiration or divine possession. The tribes of the Gold Coast, the American Indians, the Tibetans, and South Sea Islanders initiate by the use of maddening drinks. The fast, the mystic drink and meat, and the consequent visions are esoteric to some extent among all savages. The American Indian takes his name (appellation) at this time. Some such a custom belonged to Eleusis. The Negro also becomes a citizen of his tribe through this initiation. It belongs to this experience to see visions of gods or devils, and by them faith in God, immortality, and future retribution are confirmed. There as at St. Patrick's Purgatory is the hallucination of descent into the lower world. Whether all this was shown the initiates, mystæ, or the beholders, epoptæ, is undetermined. At all event there were visions both direct and in a mirror.³ The curious reader may further consult Plato, *Phædros*,

1 τέκνον, φρόνημα τοῦ θανάτου οὐ δαμάζει
πυρὸς καλεῖν γνάθος,
φαίνει δ' ὕστερον ὄρατος.

—*Choëphoræ*, 314.

2 φίλος φίλοις τοῖς ἐκεῖ καλῶς θανούσιν
κατὰ χθονὸς, ἐμπρέπων
σεμνότητος ἀνάκτωρ,
πρόπολος τε τῶν μεγίστων
χθονίων ἐκεῖ τυράννων·
βασίλειός γάρ ἦσθ', ὅφρ' ἔζης,
μόριμον λαῶς πεπλάντων
χεροῖν περὶ βροτῶν τε βάρητρον· κ. τ. λ.

—*Choëphoræ*, 343-350.

³ Cf. 1 Cor. xiii. 12; 2 Cor. iii. 18.

for the "beatific visions," ἑνδαίμονα φάσματα, Plutarch (*Frag.* VI., 1), for "holy phantasms," "sacred representations," ἅγια φαντάσματα, ἱερά δεικνύμενα, and Aristides (*Orat.*, XIX) for the unutterable apparitions, ἀρρητα φάσματα, and Dio Chrysostomos for the "mystic sights," μυστήκη θεάματα.

Clement of Alexandria quotes from the Eleusinian liturgy a passage, possibly pronounced near the close of the ceremonies, which is interesting in this connexion:

"I have fasted, I have drunk of the cup; I have received from the box; having done, I put it into the basket, and out of the basket into the chest."

"And what are these mystic chests?"—Clement goes on—"for I must expose their sacred things and divulge things not fit for speech. Are they not sesame cakes, and pyramidal cakes, and globular and flat cakes, embossed all over, and lumps of salt, etc.?"

Upon the stage of the Attic theatre appeared strange masks and customs; goat skins and leopard skins were worn. Dionysos appeared as a bull. Birds, frogs, and serpents came singing. In these and their like I suspect we have vestiges of an original totemism.¹

A visit to any ethnological museum, such as that at Berlin and our National Museum at Washington, will bring all these masks of the sacred dance dramas of tribes in various stages of culture before you. It will suggest the genesis of Greek comedy, the origins of Aristophanes and Plautus, of the Mediæval Miracle-Plays and Mystery-Plays, of Hroswitha, and of the Dance of Death. In another direction the line of development will reach to the Javanese puppet and shadow plays, the Chinese opera, and the Persian Mystery-play of Hassan and Hussein. Here was no borrowing or loaning, but various developments from the one psychic basis of humanity.

The most comprehensive, typical mystery-play of a primitive folk which is accessible is the creation-myth as it is dramatised by the Zuñi Indians. Taking Mr. Frank Cushing's account² of that cycle of sacred dances, we detect therein most of the ethical elements of the Greek drama. Œdipous and Medea are there, Orestes and Demeter are characters of the Zuñi cycle of creation-plays. The same may be truly said of the characters in Mr. Jeremiah Curtin's *Creation Myths of the New World*.

¹ Brinton, *Myths of the New World*, p. 269.

² *Thirteenth Annual Report U. S. Bur. Ethnology*, p. 325.

THE PENITENT THIEF:

EXHIBITING BUDDHA'S DOCTRINE OF THE NEW BIRTH AND
THE FORGIVENESS OF SINS.

Now first translated from the Pāli by ALBERT J. EDMUNDS.¹

Middling Collection, Dialogue No. 86.

Luke xxiii. 39-43.—And one of the malefactors which were hanged railed on him, saying, Art not thou the Christ? save thyself and us. But the other answered, and rebuking him said, Dost thou not even fear God, seeing thou art in the same condemnation? And we indeed justly; for we receive the due reward of our deeds: but this man hath done nothing amiss. And he said, Jesus, remember me when thou comest in thy kingdom. And he said unto him, Verily I say unto thee, To-day shalt thou be with me in Paradise.

John iii. 5.—Jesus answered, Verily, verily, I say unto thee, Except a man be born of water and the Spirit, he cannot enter into the kingdom of God.

Mark ii. 5.—And Jesus seeing their faith saith unto the sick of the palsy, Son, thy sins are forgiven.

Cf. also Eusebius H. E. iii. 23 (the story of the Apostle John pursuing and converting the robber).

Thus have I heard. At one season the Blessed One was staying at Sāvatti, in the Conqueror's Grove, the cloister-garden of the Feeder of the Poor. And at that season there was a robber named Finger-garland (Angulimālo) in the realm of Pasenadi, the

¹ There is a corrupt version of this story in Spence Hardy, translated from mediæval Ceylon sources, but the present is its first translation from the Pāli. Its antiquity is attested by the Pāli Great Chronicle, which tells us that it was sculptured, together with other leading stories from Buddha's life, upon the great Tope at the capital of Ceylon, in the second century B. C. The sculptures of similar scenes at Bharhut and Sānci forbid our rejecting the Chronicle's list of Ceylon sculptures as fiction. [Owing to lack of time, the proofs of the present article have not been read by the author.—Ed.]

King of Kosalâ; and he was barbarous, red-handed, devoted to killing and slaughter, unmerciful to all who live. By him towns, villages, and districts were made as though they had never been. He slew men all the time, and wore a garland of their fingers.

Now the Blessed One, having dressed betimes, took his bowl in his robe, and went to Sâvatthi for alms. When he had gone round it, and had returned from the quest of alms in the afternoon, he rolled up his mat, took his bowl in his robe, and entered upon the high road where Finger-garland the robber was. Then the herdsmen, cattle-tenders, and farmers, who were working, saw the Blessed One going thither, and called to him: "O philosopher! Go not upon that road; for a robber named Finger-garland is thereon, who is barbarous, red-handed, devoted to killing and slaughter, unmerciful to all who live. By him towns, villages, and districts are made as though they had never been. He slays men all the time and wears a garland of their fingers. O philosopher, men go upon this road only in companies of ten, twenty, thirty, or forty; and they go armed for fear of Finger-garland the robber."

When they had said this, the Blessed One went on his way in silence. And a second and a third time they said so, but still the Blessed One went on his way in silence.

Now Finger-garland the robber saw the Blessed One coming from afar, and seeing him he thought to himself: "This is wonderful, this is marvellous: men go upon this road only in companies of ten, twenty, thirty, or forty, and they go armed for fear of me; but this philosopher, it seems, is alone, without any one, open to attack. What if I now take the life of this philosopher?" Then Finger-garland the robber took his sword and shield, got bow and quiver ready, and walked behind the Blessed One. But the Blessed One put forth such an effort of psychical power that Finger-garland the robber, going with all his might, could not overtake the Blessed One going by his inner force (*pakati*). So the robber thought to himself: "This is wonderful, this is marvellous: hitherto I have chased and caught an elephant running, a horse, a chariot, or a deer; but now, going with all my might, I cannot overtake this philosopher going by his inner force." He stood and said to the Blessed One: "Philosopher, stand! Philosopher, stand!"

"I am standing, O Finger-garland; stand thou also!"

Then Finger-garland the robber thought to himself: "These Sâkya philosophers tell the truth and keep their promises. And yet this philosopher, even while he is going, says, 'I am standing, O Finger-garland; stand thou also!' What if I now ask him [what

he means]?" Then the robber addressed the Blessed One with a stanza:

"Philosopher, thou sayest, 'I am standing,' while thou art going, and thou callest me standing when thou art not so;

"I ask thee, philosopher, this question: How art thou standing when I am not standing?"

"I am standing, O Finger-garland, always among all beings, having laid aside the staff;

"But thou art unrestrained among living things: therefore I am standing, and thou art not."

"Long has the great Seer (*Jsi*),¹ this philosopher debating in the great Wood, been revered by me;

"I myself will renounce evil for long, having heard thy stanza that is linked with religion.

"Even thus does a robber resemble² a sword or a weapon at the pit and precipice of hell."

The robber bowed at the feet of the Auspicious One, and begged of him ordination on the spot.

Then Buddha, the compassionate Seer, he who is master of the world with its angels,

Said to him: "Come, O monk;" and this was all there was to make him a monk.

* * *

Now the Blessed One, with Finger-garland for an attendant philosopher, went on his journey towards Sâvatthi and in due time arrived there; and there the Blessed One stayed at Sâvatthi, in the Conqueror's Grove, the cloister garden of the Feeder of the Poor. Now at that season a great crowd collected at the palace-gate of Pasenadi, the King of Kosalâ, and there went up a hue and cry: "Your Majesty, there is a robber in your realm named Finger-garland, who is barbarous, red-handed, devoted to killing and slaughter, unmerciful to all who live. By him towns, villages, and districts are made as though they had never been. He slays men all the time, and wears a garland of their fingers. Let your Majesty arrest him."

Now Pasenadi, the King of Kosalâ, departed that day from Sâvatthi with some five hundred horses and proceeded to the cloister-garden. He went by chariot as far as the ground was passable for chariots, and then alighted, and went on foot to where the Blessed One was. Going up to the Blessed One, he saluted him and sat

¹ Sanskrit, *Rishi*.

² *Anvakôri*.

respectfully on one side. While he so sat, the Blessed One said to him: "O great King, is Seniyo Bimbisâro, the King of Magadhâ, provoked at you, or the Licchavi [clan] of Vesâli, or other rival Kings?"

"Nay, Lord: none of these Kings are provoked at me. But, Lord, there is in my realm a robber named Finger-garland, who is barbarous, red-handed, devoted to killing and slaughter, unmerciful to all who live. By him towns, villages, and districts are made as though they had never been. He slays men all the time and wears a garland of their fingers. Lord, I fear I shall not arrest him."

"But, great King, if you saw Finger-garland with his hair and beard cut off, having put on the yellow robes and gone forth from domestic life into the homeless one; abstaining from taking life, from theft, and from lying; eating one meal a day, chaste, moral, with a glorious religion,—what would you do to him?"

"Lord, we should salute him respectfully, or rise in his presence, or offer him a seat, or present him with robe and alms-bowl, a lodging-place, the requisites for sickness, medicine and conveniences; and we should appoint for him the protection, toleration, and defence that are due to religion.¹ But, Lord, how could there be such moral restraint in an immoral, wicked man like him?"

Now at that time the venerable Finger-garland was sitting not far from the Blessed One. Then the Blessed One, stretching out his right arm, said to Pasenadi, the King of Kosalâ: "This, great King, is Finger-garland!"

Then the King was seized with fear, consternation, and horror, and the Blessed One, seeing him afraid and agitated with horror, said to him: "Fear not, great King, fear not; there is nothing for you to fear any more." So the King, who had been terrified, became calm again, and went up to Finger garland, saying to him: "Surely your Reverence is not Finger-garland?"

"Yes, great King."

"What is the clan of your Reverence's father, and what is the clan of your mother?"

"Great King, my father is a Gaggo, and my mother a Mantânî."

"May it please your Reverence Gaggo-Mantânî-son, I shall supply you with robe and alms-bowl, with a mat to sit and sleep

¹ Rhys Davids translates the same phrase in the *Long Collection* thus: "watch and ward and guard, according to the law." The "or" in our present translation of this paragraph arises from a difference in the text.

on, and with the requisites for sickness, medicine and conveniences."

But at that season the venerable Finger-garland was a forest-dweller, with an alms-bowl, and wearing three robes taken from dust-heaps. So he said to the King: "Enough, great King: three robes are my full outfit."

Then Pasenadi, the King of Kosalâ, approached the Blessed One, saluted him respectfully, and sat on one side. And so sitting, the King said to the Blessed One: "Wonderful, O Lord! Marvellous, O Lord! is it even until now, O Lord Blessed One: men are tamed among the untamed, pacified among the unpacified, and among those who have not attained, they are brought to Nirvâna (literally, extinguished among the non-extinct). He, Lord, whom we could not tame by staff or sword, is tamed by the Blessed One without staff and without sword. But now, Lord, we must go: we have much to do, much business on hand."

"Just as you think fit, great King."

So Pasenadi, the King of Kosalâ, rose from his seat, saluted the Blessed One respectfully, and keeping him on his right hand, departed.

Then the venerable Finger-garland, having dressed betimes, took bowl in robe and went into Sâvatthi for alms. And going through Sâvatthi from house to house for alms, he saw a woman in the agonies of travail, and thereupon thought to himself: "Alas, how beings suffer; alas, how beings suffer!"

Now the venerable Finger-garland, having gone to Sâvatthi for alms and returned in the afternoon, approached the Blessed One, saluted him, and sat as usual, and said: "Lord, to-day on my begging rounds in Sâvatthi, while I went from house to house, I saw a woman in the agonies of travail; whereupon I thought to myself: 'Alas, how beings suffer; alas, how beings suffer!'"

"Well now, Finger-garland, go to Sâvatthi, go up to that woman and say this: 'Since I was born, sister, I do not remember that I ever purposely took the life of anything that breathes. By this truth be there safety to thee and safety to thy womb.'"

"But, Lord, that would surely be for me a deliberate lie: by me, Lord, have many breathing things been reft of life."

"Well, then, Finger-garland, go to Sâvatthi, approach that woman and say: 'Sister, since I was BORN OF THE NOBLE BIRTH I do not remember that I ever purposely took the life of aught that breathes. By this truth be there safety to thee and safety to thy womb.'"

"Even so, Lord," said the venerable Finger-garland, in assent unto the Blessed One; and going into Sâvatthi, he approached that woman and said: 'Sister, since I was BORN OF THE NOBLE BIRTH I do not remember that I ever purposely took the life of aught that breathes. By this truth be there safety unto thee and safety to thy womb.'

Whereupon there was safety unto that woman, and safety to her womb. And forthwith the venerable Finger-garland, dwelling alone, retired, earnest, ardent, and strenuous, for a little time, realised by his own supernal Knowledge, and even in this world, that incomparable goal of the religious life, for the sake whereof do veritable gentlemen go forth from the domestic life into the homeless one: he perceived that birth was destroyed, the religious life was lived, and duty done, and for this existence there was naught beyond. And so the venerable Finger-garland became one of the Arahats.

Now the venerable Finger-garland, having dressed betimes, took bowl in robe, and went to Sâvatthi for alms; and on one occasion a clod of earth was thrown and hit his person; upon another occasion a stick, and yet again a stone. Then the venerable Finger-garland, with his head broken and the blood flowing, his bowl broken and his robe rent, approached the Blessed One. And the Blessed One saw him coming from afar, and said to him: "Bear up, O Brâhman, bear up! *You are feeling in this world the effect of some deed for which you would have been tormented in hell for many years, for many hundreds and thousands of years.*"

Then the venerable Finger-garland, when secluded and solitary, felt the bliss of deliverance, and on that occasion gave vent to the following Udâna:

[The Dialogue ends with a page of verse. The words italicised are important. This is the doctrine of the forgiveness of sins. To the Arahats all the past is wiped away, and he only suffers such physical effects of evil as those described; but no retribution can follow him beyond the grave.]

MISCELLANEOUS.

EXPERIMENTAL MATHEMATICS.

While the best mathematical minds have always gathered their knowledge as well as their power from observational and experiential contact with the forms of reality, the empirical method has not until recently been applied so systematically to instruction in mathematics as it has been to instruction in the natural sciences. Advancement is always more rapid by the lecture method, or by that of continuous exposition from a text-book. The truth is here presented ready made, the pupil absorbs it easily and is not put to the trouble of seeking it anew. Hence, these methods have always been preferred by educational machinists, and students have, as a rule, been left to their own resources in acquiring solid and enduring knowledge.

But we know from history that geometry was originally a body of empirical knowledge; that it began, in the case of the Egyptians and the Greeks, with the observation of the forms of real things and of individual relations; that the empirical knowledge, thus observationally discovered, was systematised and classified; and that by induction the empirical facts were subsequently organised into a science.

The induction in the case of geometrical discovery is, it is true, of an entirely different character from what it is in the case of discoveries in the classificatory natural sciences. The induction, the guess, the divination, in geometry, usually proceeds from a *small* body of suggestive hints gathered from a *narrow* and *thoroughly determined* field of experience. But, so far as the *development* of the science is concerned, it is induction nevertheless, and it would seem that a sound method of instruction should require that the development of this knowledge in the individual should proceed pretty much along the same lines as the development in the race. Not that the pupil should retrace all the tortuous steps through which the science has been gradually and laboriously brought to its present stage of perfection; as a matter of fact, the instructional development will have to depart in many respects widely from the actual development; but it will always receive its natural support, its guidance, and its general trend from that development. Shortcuts, abridgements, and all the devices which economy of mental effort may suggest are permissible, and all will lead in the end, not to a method of re-discovery, but to a method of genetic and logical reconstruction. Results will always be preceded by investigation, always be provoked by actual inquiry.

To quote the words of Dr. Paul H. Hanus, Assistant Professor of Teaching in Harvard University, and the author of the little pamphlet entitled *Geometry in the Grammar School*, which we are now considering, "To present the 'net pro-

duct of an inquiry without the inquiry which led to it,' is to cultivate a reliance upon the verbal memory to the neglect of the power of overcoming difficulties and of assimilating experiences; moreover, the accumulation of such unrelated mental stores is merely transitory,—they are soon forgotten; there is no permanent gain of either knowledge or power. A method of continuous exposition is productive only with minds already developed, not with those *to be developed*. By its exclusive use with minds at all degrees of maturity the best results can never follow. Self-activity, interest, self-reliance, the power to be useful, these will never follow a method of instruction by which mental stores are imparted as so many free gifts. Fortunately such gifts are really impossible; there is no inheritance of knowledge and power. Only capabilities are inherited. There is but one universal inheritance,—*ignorance*; one universal means provided by nature of rising above this inheritance,—*self-exertion*. Who does not employ the means Nature has provided remains unlearned and helpless, though he may for a time simulate attainment and intellectual strength."¹

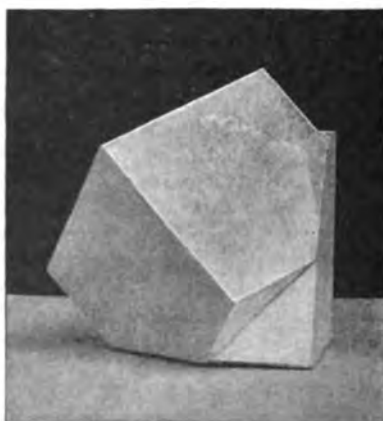
Professor Hanus is merely repeating what hundreds of thinkers and educators have time and again insisted upon, when he says that principles of conduct and rules of procedure, whether in life or in science, do not become real possessions until experience has verified them and shown their efficacy; that it is a well-known mental law that intelligence always proceeds from thing to name and symbol, from facts to principles and rules, and that in conformity with this law the facts of geometry must enter the learner's mind *through experience*. The learner must see and feel material bodies, their surfaces, their bounding lines, their corners; he must see that two vertical angles or two triangles under certain conditions are equal, by actually superposing them; must see by placing them side by side with their vertices coinciding that the three angles of any triangle together form two right angles, etc., etc. The generalisations will then follow. Above all, it is essential to develop the questioning attitude, and then to satisfy the inquiring mind by furnishing it with the *opportunity* of reaching the truth. "The attitude of a boy who has measured heights and distances by using the propositions concerning the equality of triangles, toward those propositions themselves, is very different from the attitude of the boy whose first experience with those propositions is drawn from a text-book or from a formal presentation by the teacher. The formal statement of the propositions and their logical proofs are to be introduced gradually and after the facts have been presented empirically."

Affirming the psychological truth that "clear mental perception can only follow clear physical perception." Professor Hanus then proceeds to indicate in large outlines the course and methods of instruction which are to be followed in the teaching of elementary geometry in the grammar school, and he has appended to his little pamphlet a synopsis of the simple experimental work which might be done in geometry in the last three years of the grammar school course. The nature and subject of the work only are indicated; the development is left almost entirely to the teacher. The method is altogether object teaching. Records of observations are kept by the pupil, who is led to express himself by drawing, by construction, and in words, and to convince himself of geometrical truths primarily through measurement, drawing, cutting, superposition, and construction. Every

¹ *Geometry in the Grammar School*. An Essay together with illustrative class exercises, and an outline of the work for the last three years of the grammar school. By Paul H. Hanus. Assistant Professor of the History and Art of Teaching, Harvard University. 1898. Boston: D. C. Heath & Co., Publishers. Pages, ix, 52.

opportunity is to be taken of making the pupil's geometrical knowledge bear directly upon life. The use of the foot-rule, tape or chain, with some form of the goniometer, is recommended for obtaining data and for imparting to theoretical results body and significance. "Nothing can exemplify the value of class-room instruction like a practical application to construction in the shop, or measurement in the field. *For geometry as for geography 'field work' is well-nigh indispensable.*"

The methods which have been roughly indicated in the preceding paragraphs have been carried out, so far as the elementary features of the subject are concerned, with almost superfluous detail, in an attractive and profusely illustrated book entitled *Observational Geometry*,¹ by William T. Campbell, A. M., instructor in mathematics in the Boston Latin School,—a work which forms part of the Phillips-Loomis Mathematical Series. The elementary "laboratory work" and "field-work of geometry," noted above, are here developed to the utmost extent, and even carried out in cases where with average pupils it would seem almost un-



CARD-BOARD MODEL OF A TWIN-CRYSTAL OF CALCITE.
(From Campbell's *Observational Geometry*.)

necessary. Aiming to give to the hand dexterity and skill in making drawings and models of geometrical figures, it devotes 125 pages to the consideration of elementary forms and the construction of models. The uses of the main geometrical and mechanical instruments are taught, and directions given for the construction from thin cardboard of all the principal geometrical solids. In the annexed cut will be found a representation of a model of a twin crystal of calcite consisting of two interpenetrating cubes, made from a single piece of cardboard so outlined, cut, and folded as to take the shape seen in the figure. The second part of the book is devoted to plane geometrical construction (lines, angles, polygons, and circles), the measurement of areas, similar figures, and surveying.

Dr. A. W. Phillips, the editor of the series in which this book appears, remarks that the revolt against the old arithmetic problems, which resulted in the substitution of nature studies for arithmetic drill, was due to a want of careful and

¹ Published by The American Book Co., New York. Pages, ix, 240.

systematic development of the subject as a means of cultivating the faculties of observation. Now this want, he contends, is supplied by observational geometry, which "combines the training of the nature studies, so far as these educate the eye to keen and intelligent perception, with the training which the more valuable problems of the old arithmetics furnish, and so gives a mental discipline at once rigorous and entirely free from that one-sidedness which either of these systems fosters when taken alone." The truth of this may be readily gathered from the exercises and problems of the second part of Mr. Campbell's book. The measurements are all actually carried out here in connexion with real objects, and the instruction thus takes on the character of a serious and intrinsically interesting investigation, as contrasted with that of a purely theoretical study. The second illustration, showing the method of determining the height of a tree by means of surveying instruments and the theory of similar triangles, has been taken from Mr. Campbell's book, and is typical of the character of the work there outlined. It is one only of a large number of similar illustrations.

* * *

In his *Advanced Arithmetic*,¹ Mr. William W. Speer, District Superintendent of Schools, Chicago, has extended to the general theory of fractions, proportions

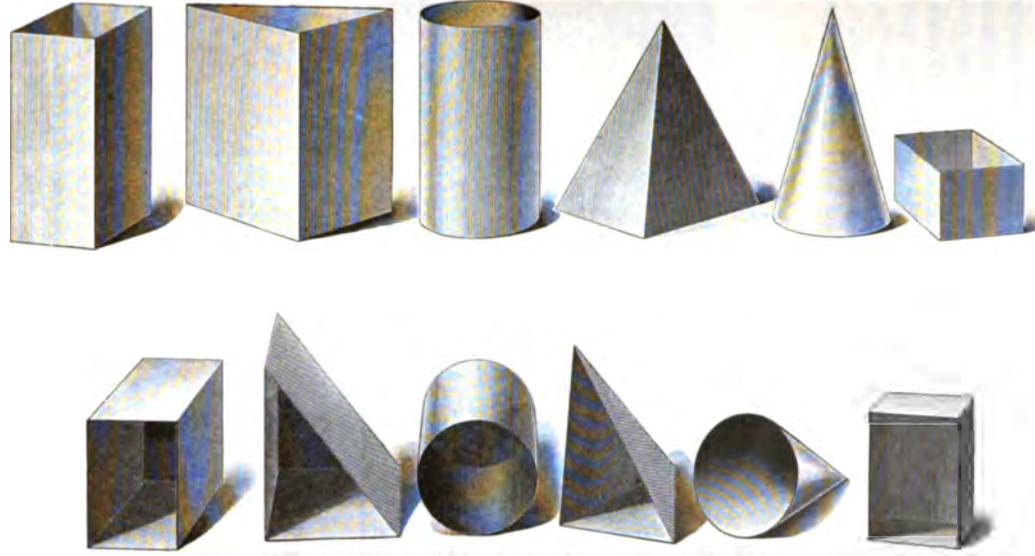


MEASURING THE HEIGHT OF A TREE.
(From Campbell's *Observational Geometry*.)

and elementary mensuration the same principles which guided him in the preparation of his *Primary* and *Elementary Arithmetic*. We noticed Mr. Speer's books at length in No. 504 of *The Open Court* (May, 1898), and little remains to be said here upon his latest work. In his system the great body of arithmetical truths is not differentiated and split up into arbitrary chapters and divisions, as it is in the common run of arithmetics, but is developed genetically as a connected organic whole. Sense-training is throughout made the basis of the development of arithmetic thought, and *concrete* relations of magnitude are made the foundation of all mathematical inferences. Every possible variety of quantitative relation in nature, industry, science, and art, is employed for this purpose. Sets of blocks, bundles of fagots, and sets of geometrical solids accompany Mr. Speer's books, and are indispensable for the concrete instruction which they require. Coins, clock dials, liquid and dry measures, and metric forms of every conceivable kind, are also em-

¹*Advanced Arithmetic*. By William W. Speer. 1899. Boston: Ginn & Co. Pages, xx, 261.

played or recommended. The comparison of volumes is made by the actual measurement of contents, as shown in the appended illustrations of prisms, cylinders, pyramids, and cones taken from Mr. Speer's book. Paper-cutting and modelling are also extensively used in the present book. The two illustrations which we have reproduced on page 639 are instances of the determination of rela-



HOLLOW PRISMS, CYLINDERS, PYRAMIDS, AND CONES.

Used for the comparison of volumes. (From Speer's *Advanced Arithmetic*)

tive volumes and surfaces by experimental measurements. In each case the cylinder is the circumscribing cylinder of the sphere represented in the figure. The lateral surface of the cylinder is shown to be equal to the surface of the sphere by comparing the length of the cord which covers the curved surface of the hemisphere with that which covers one half of the lateral surface of the cylinder. In the other

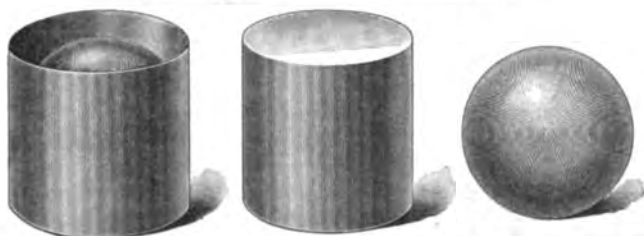
figure, the volumes of the sphere and the circumscribing cylinder may be compared by filling them with water, and the volume of the sphere shown to be two thirds of the volume of the cylinder.

Mr. Speer's system is being used with great and merited success in the schools of Chicago and elsewhere. There is but one serious criticism which suggests itself in connexion with it, and that is that the introductions and the directions to teachers which are psychologically sound in the main, are put in too abstract and disconnected a form for readers of general training, and that for this reason many teachers who have not had the advantage of personal initiation into the method might



EXPERIMENTAL COMPARISON OF THE SURFACE OF A SPHERE AND THE LATERAL SURFACE OF THE CIRCUMSCRIBING CYLINDER.

(From Speer's *Advanced Arithmetic*.)



EXPERIMENTAL COMPARISON OF THE VOLUMES OF A SPHERE AND ITS CIRCUMSCRIBED CYLINDER BY MEASURING WITH WATER.

(From Speer's *Advanced Arithmetic*.)

find the books difficult to use and perhaps fail therefore to appreciate the power of the system to its full extent. If the exposition of the subject were as concrete and continuous as the system itself aims to be, we believe that nothing could stand in the way of its widespread introduction.

T. J. McC.

IMMORTALITY.

BY SOLOMON SOLIS-COHEN.

I dreamed my spirit broke the bars of sense
That hold the gates of consciousness shut fast,
Threw off the prison garb of self, and passed
Into the wonder of Omniscience.

As mists that rise from ocean and condense
In clouds, in million rain-drops melt, at last

Through brooks and rivers join again the vast
 Primeval sea,—so do I read the Whence
 And Whither of the soul.

When stream meets sea,
 Is the swift river-wave forever gone?
 When souls rejoin All-Soul, cease they to be?
 There where the All is Thought, and Thought is One
 Within the Infinite All, eternally
 The thought once bound in one, lives boundless on.

BOOK-REVIEWS.

THE OLD FAITH AND THE NEW PHILOSOPHY. Lectures delivered before the Canadian Summer School for the Clergy, in Port Hope, Ont., July, 1899. By *G. J. Low, D.D.*, Canon of Christ Church Cathedral, Ottawa, and Rector of Trinity Church, Billings' Bridge. With an Introduction by Principal Grant, of Queen's University. Toronto: William Briggs. 1900.

Our readers may remember the genial and pleasant discourses which Canon Low published in *The Open Court* some three years ago entitled "In Nubibus; or The Cogitations of a Smoking Philosopher." This thoughtful clergyman has now attempted something more systematic in the way of reconciling the teachings of his Church with the conclusions of science, and has given to the world the results of his lucubrations in the work before us. He accepts in full the established truths of modern scientific and critical thought, which in its grand total he calls the "New Philosophy," while he abates not one jot or tittle of his faith in Christianity. He says: "We shall not argue that this or that is only an hypothesis at present, and therefore to be ignored, or that this or that link is missing. We will, for the sake of argument, assume or concede the whole system, and then strive to show that the great doctrines of the Christian faith are consonant with the evolution which pervades the works of God—that the 'Natural Law has been projected into the spiritual world,' to adopt Drummond's happy phrase; or, in the language of that grand master of metaphysical theology, Bishop Butler, we shall endeavor to establish 'the analogy of revealed religion to the constitution and course of nature,' as interpreted by the New Philosophy."

In this spirit and by this method Canon Low has treated such topics as "The Trinity," "The Holy Ghost," "The Person and Work of Christ," "The World's Great Sacrifice," and "The Holy Catholic Church." Certainly, as Principal Grant affirms in his Introduction to his friend's work, he has combined boldness with reverence and godliness with brotherly kindness and mutual trust; and we cannot but believe that his book will be productive of much intellectual good among the brethren of the Church.

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THE FARNESE HERAKLES.

(Naples.)

Frontispiece to *The Open Court*.

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ON GREEK RELIGION AND MYTHOLOGY.

BY THE EDITOR.

THE DEMETER MYTH.

DEMETER (i. e., Mother Earth) is an indigenous Greek deity. There is nothing Asiatic about her, as is the case with the Ephesian Artemis. She is a more truly religious and less abstract personification of earth than Gæa and thus must be counted among the most significant figures of Greek mythology.



DEMETER.

Terra cotta relief. (After Overbeck, *Kunstmythologischer Atlas*, pl. 16, 8.)

As the sunshine in combination with the fertile soil produces vegetation, so Zeus begets with Demeter the goddess of flowers and fruits, Persephone, also called Kora, that is, the maiden.

The Demeter myth is of great significance. The story goes that Hades, the ruler of the dead, espied Persephone, the goddess of vegetation, and abducted her to his dreary abode in the Under World. The bereaved mother, Demeter, was disconsolate; she

wandered all over the earth in search of her daughter, bestowing the blessings of agriculture and civilisation wherever she went, and was determined not to return to Olympus until Zeus should send Hermes down to Hades with the command to allow Persephone to return to her mother. The god of the dead obeyed, but gave her the seeds of the pomegranate to eat, which made her a denizen



DEMETER, THE QUEEN OF THE HARVEST FESTIVALS.
Fresco of Pompeii. (*Mus. Borb.*, VI., 54.)

of the infernal regions forever. Thus the agreement arose that for two thirds of the year the maiden should return to the surface of the earth and for one third of the year, in winter, stay with her grim husband, Hades. Demeter rejoiced at the restoration of her daughter and had the Eleusinian Mysteries instituted to commem-

orate the loss and return of Persephone and to celebrate these events as a symbol of the constant reappearance of the life of nature and as a promise of the immortality of the human soul.

The Demeter myth is the subject of a most beautiful classical hymn, commonly ascribed to Homer, which, like many other pieces of Greek poetry, is untranslatable in its full grandeur and beauty. The lamentations of the goddess for her lost daughter are most pathetic. Demeter says:

"O Sun, compassionate me on behalf of my divine daughter, if ever either by word or deed I have gratified thy heart and mind. My daughter whom I bore, a sweet blossom, beauteous in form, whose frequent cries I have heard through the sterile air, as though she were being forced away, but I have not beheld it with mine eyes,—but do thou (for thou from the divine æther dost look down with thy rays



ALTAR OF DEMETER.¹

(Frontispiece to Taylor's *Eleusinian and Bacchic Mysteries*.)

upon all the earth and sea) tell me truly, dear son, if thou hast anywhere seen him, of the gods or mortal men, who, without my consent, has seized her perforce and carried her off."

Then Demeter wanders about spreading bliss wherever she goes, and at last her daughter is restored to her for two thirds of the year, which time the goddess spends in "increasing the life-giving fruit for men." At last Triptolemos, a local hero of Attica, is sent out into the world as Demeter's messenger for the instruction of all the nations in the art of agriculture.

Schiller has cast similar ideas into German words and has succeeded in producing a most thoughtful poem under the title of *Die Klage der Ceres*, in which he describes the search of the discon-

¹ The sacrifice to Demeter consists in a burning sheaf. She is worshipped by the people whom she changes from barbarians into civilised men. Zeus approves of her mission and her serpent guards the altar, decorated by her symbols, flowers, wheat, and fruit.

solate mother, the institution of agriculture together with the establishment of cities and states, the restoration of her lost child, and the celebration of the Eleusinian harvest festival.

Grote, in his *History of Greece* Vol. I., p. 55, after an admirable analysis of Homer's *Hymn to Demeter*, recommends it no less as a



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CHRIST AS ORPHEUS.¹

1 and 3, from paintings in the cemetery of St. Calixtus in the Catacombs of Rome. 2, from a coin of Antoninus Pius (third century).

picture of the Mater Dolorosa than as an illustration of the nature and growth of Grecian legend generally, saying :

"In the mouth of an Athenian, D  m  ter and Persephon   were always the Mother and Daughter, by excellence. She is first an agonised sufferer, and then

¹*Symbols and Emblems of Early and Mediaeval Christian Art.* By Louisa Twining. Pl. 16. London, 1885.

finally glorified,—the weal and woe of men being dependent upon her kindly feeling."

Grote adds :

"Though we now read this hymn as pleasing poetry, to the Eleusinians, for whom it was composed, it was genuine and sacred history. They believed in the visit of *Démèter* to Eleusis, and in the mysteries as a revelation from her, as implicitly as they believed in her existence and power as a goddess."



TRIPTOLEMOΣ, SENT OUT BY DEMETER ON HER CHARIOT DRAWN BY DRAGONS.
Vase-picture of Kertch. (After *Comte-Rendu*, 1862, pl. IV.—*B. D.*, 1858.)

ORPHEUS.

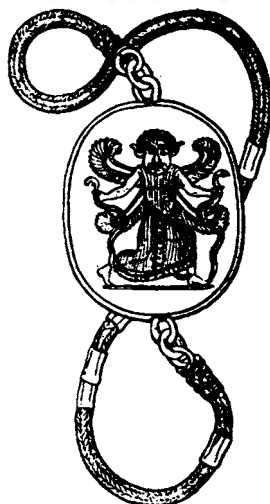
The Orphic Mysteries were similar to the Eleusinian, in ritual as well as in significance, and though we possess but meagre information concerning the legend and cult, which were kept secret, we know that it inculcated in some way a belief in immortality.

Orpheus, the singer who tamed the wild beasts of the woods by his music, lost his wife, Eurydice, by death; but going down to the Under World he moved Hades by his music to suffer her to follow him back again to the Upper World on condition that he should not look round upon her. He violated this condition, however, and she vanished from his sight.

The legend runs that Orpheus was slain, or, like Dionysos Zagreus, torn to pieces by the frenzied women of Thrace. Our information is too scanty and also contradictory to allow us to form any clear conception of the meaning of the Orphic rituals and myths; but one thing is certain: there were many among the early



HERMES PSYCHOPOMPOS AND
THE ANGEL OF DEATH.¹
(Relief on a hollow marble
column of Ephesus.)



GORGON AS AMULET.²

Christians who revered Christ as a redeemer from death in the same sense as the Orphic priests believed in the efficacy of the Orphic Mysteries; for pictures of Christ as Orpheus are quite common in the catacombs.

HERMES.

From Maia (that is, the nourishing one, the mother goddess) Zeus begot Hermes, the herald of the gods, the protector of commerce and trade, and the deity that conducted souls to Hades.

¹ Between Hermes and Death stands the figure of a woman, perhaps Persephone. See Wood, *Discov. at Ephesus*, London, 1877, and for illustrations of the "columna caelata," *Arch. Zig.*, 1865, pl. 65. *B. D.*, p. 281, and Springer, *Hdb.*, I., p. 181.

² Gem from Kertch. After *Comte-Rendu*, 1860, pl. 4, fig. 6. (Roscher, *Lex.*, p. 1711.) See the illustrations on page 638 of the present *Open Court*.

Hermes is a god who gained in significance the more the belief in the Beyond grew in importance, for Hermes (even as early as Homeric times) was the leader of souls to the Under World (*ὁ ψυχοπόμπος*), and he, too, as we learned in the Demeter legend, assists the subjects of Hades to return to the world of light and life. He was worshipped as the resurrector, and artistic representations of this office became the prototypes of pictures of Christ raising the dead.

The reverence for Hermes grew when he became identified with the Egyptian Thoth, the scribe of the gods and the god of wisdom, of learning, of science; the deity of the word, of the written revelation, of science, who was called Poimander, the shepherd of men.

The Egyptian influence which, as we have seen, was very strong in the early days of Greece, made itself felt also in the period



PROMETHEUS CHAINED TO THE ROCK AND LIBERATED BY HERAKLES.
Ancient sarcophagus now in the museum of the Capitol, Rome.

of decline, and many ideas, such as of Abraxas, the Adorable One, of Thoth, the incarnate Word, of Serapis (presumably a corruption of Osiris Apis), the slain and resurrected God, of Isis the Holy One, the Mother of God, of Harpocrates, God the Child, as well as the institution of monkhood practised by the followers of Serapis, penetrated the Greek world at the beginning of the Christian era and left their impression on the beliefs of the people, partly preparing for the advent of the new religion and partly entering into it in a modified form.

PROMETHEUS.

One Titanic figure deserves especial mention, from possessing a peculiar significance as the shaper of mankind and as the sufferer. It is Prometheus, the bold, struggling genius of progress, the *esprit fort*, the man who dares and does. He bestows on mankind the

heavenly gift of fire in spite of the prohibition of Zeus, and is willing to suffer for it on the cross (as Æschylus expresses it), being fastened at the command of Zeus to Mount Caucasus by Hephæstos. There daily an eagle appears to lacerate the liver of this martyr for the cause of human welfare; and the liver grows again over night so as to perpetuate the torture, when finally Herakles comes to his rescue. This hero shoots the eagle and reconciles Zeus and Prometheus, the proud sovereign and the noble-



PELEUS STRUGGLING WITH THETIS.¹

Vase-picture in Munich. (After Gerhard, *Auserl. Vasenb.*, III., 227.—*B. D.*, 1799.)



THE JUDGMENT OF PARIS.²

Bas-relief in the Villa Ludovisi (*Mon. Inst.*, III., 29).

minded rebel. Prometheus then communicates to Zeus the secret that Thetis, the goddess of the deep sea, whom Zeus intended to

¹ When Zeus decided to have Thetis married to a mortal man, Peleus was chosen; but the latter had to conquer his bride, and in this task he succeeded (according to the painter of the vase) with the assistance of the wise centaur Cheiron, the educator of Achilles. A nymph Ponto-medusa gives the cause of her mistress up as lost and flees.

² Hermes conducts Hera, Athena, and Aphrodite into the presence of Paris, who is tending his flocks in company with his wife Oinone. Hera and Athena are at the right of Paris; Aphrodite is at his left. Bros leans on his left shoulder. Herakles, Artemis, Helios, a river god, and a nymph witness the scene.

marry, was (like Themis) destined to bear a child that would be greater than his father.

In Hesiod's *Theogony* Prometheus appears as a mere mischief-maker, but in the later development of religious thought he becomes the ideal of human progressiveness and courage of thought, being a Greek anticipation of, and a parallel to, the Faust character in the legends of the times of the Renaissance.

Prometheus, the Forethinker, is contrasted with his brother Epimetheus, the man of after-thought. Prometheus had warned Epimetheus not to accept any gift from Zeus, but the latter found a woman whom he called Pandora, the "all-gift," so beautiful that Epimetheus could not resist the temptation and received her with



ISDUBAR, THE BABYLONIAN HERAKLES, CONQUERING THE LION.
(Lenormant. *Histoire ancienne de l'Orient*, Vol. V., p. 178.)

a box of gifts into his house. When the box was opened all the ills that flesh is heir to flew out, filling the world with woe.

The Promethean spirit is powerfully described by Goethe in his poem *Prometheus*, where the bold Forethinker is characterised as taking his stand against Zeus and building up an independent liberty-loving humanity in spite of the tyrant in heaven.

Zeus was slow in granting man his liberty, but apparently he did not mean to become an enemy to human progress. Thus Zeus and Prometheus were reconciled and now the God is warned by the prophetic Titan of the danger that threatened him. Zeus thereupon has Thetis married to Peleus, a mortal, whose son Achilles

becomes the famous hero of Homer's *Iliad*. The wedding of Peleus is the beginning of the Trojan war, for Eris, the goddess of quarrel, the only deity that was not invited, rolls into the assembly a golden apple with the inscription, "To the fairest." Hera, Athene, and Aphrodite contend for the prize, and Paris, the shepherd of Mount Ida and son of King Priam, is appointed by Zeus as judge. Hera offers him fame, Athene wisdom, and Aphrodite the most beautiful woman on earth. Paris decides in favor of Aphrodite who helps him to abduct Helen, Queen of King Menelaus of Lacedæmon, which becomes the cause of the Trojan war.

HERAKLES.

The hero-myths of Greece are specialised forms of the worship of Zeus in his sons as saviours of mankind. All heroes are children



HERAKLES STRANGLES THE TWO
SNAKES SENT BY HERA
TO KILL HIM.¹

(Fresco of Herculaneum.)



HERAKLES DESCENDING INTO
THE BELLY OF THE LEVIATHAN.²

Vase-picture. (*B. D.*, I., p. 663.)

of the common father of all gods and men, and foremost among them is Herakles, the liberator of Prometheus, a son of Zeus and Alcmene, Queen of Argos.

¹ Behind Herakles stands his mother, Alcmene; Amphitryon, his step father, King of Argos, draws his sword to help the child; the tutor of the children holds the frightened Iphicles, the stepbrother of Herakles, in his arms.

² This vase-picture (which should be compared with the vase-picture of "Jason rescued by Athena from the jaws of the dragon" *v. infra*) was formerly believed to represent Jason's struggle with the dragon, but is now interpreted as depicting a parallel to the Perseus legend preserved by Hellanikos (*Ap. Schol. Iliad.*, Y. 146), who relates that Herakles in delivering Hesione, the daughter of King Laomedon of Troy, descended into a dragon and slew him by severing his intestines, a task that cost him three days' labor, during which time the hero's hair was burned by the internal heat of the dragon.

Historians have proved beyond the shadow of a doubt that Herakles is none other than the Phœnician Melkarth, the Baal of Sor (i. e., Tyre), and the Phœnician Melkarth again is none other than Bel Merodach, the Christ of the Assyrians and Babylonians. The Israelites knew him under the name of Samson and told legends of him that betray his solar origin. As the nations of Western Asia have inherited much of their civilisation as well as of their religion from the ancient Sumero-Accadians, the assumption



MELKARTH.¹

Colossal statue found at Amathus. (*Gazette archéologique*, 1879, pl. XXXI.)



THE FARNESIAN ATLAS.²

(After a photograph. *B. D.*, I., 225.)

is justified that the legend of Herakles, the Greek Melkarth, is the Hellenised form of a very old myth,—a venerable heirloom handed down from prehistoric ages.

Herakles is the god-man, the sun-god incarnate, who in his

¹ The god holds a lion in his hands as if on the point of tearing it in twain. His beard is trimmed in Assyrian fashion, indicating the home of the artist's prototype. Cf. Lenormant, *His toire ancienne de l'Orient*, Vol. VI., p. 566.

² Atlas (i. e., the bearer), according to Homer, carries the dome of heaven, which seems to rest on the ocean. Artists represent him bearing the segment of a star-covered globe (see, for instance, the illustration of the garden of the Hesperides, *v. infra*). Later statues show him with a zodiacal globe on his shoulders.

wanderings bestows blessings upon the children of the earth and by bold deeds rescues mankind from evil. The twelve labors of



THE TWELVE LABORS OF HERAKLES.
Relief in the Villa Albani at Rome.

a, Herakles kills the Nemean lion; b, he rescues Theseus from the Underworld; c, he tames the horses of Diomedes, a nymph witnesses the scene; d, he conquers the Lernaean hydra in the presence of the nymph Lerna; e, he catches the Keryneian hind; f, he shoots the Stymphalian birds, a deed which moves the pity of the local nymph; g, he carries home the Erymanthian boar; h, he tames the Kretan steer; i, he cleanses the stable of Augeas, the river god Alpheios seated before him, furnishes the water; k, he conquers the three-bodied Geryones, behind them stands the nymph of Spain; l, he kills the dragon who guards the apples of the Hesperides, one of them being present in the scene, the goats being the animals of Libya; m, he conquers the centaurs (according to the common version, the Amazons).

Herakles are the accomplishments of the sun during the twelve months. How much Herakles, as the rescuer from evil, was like

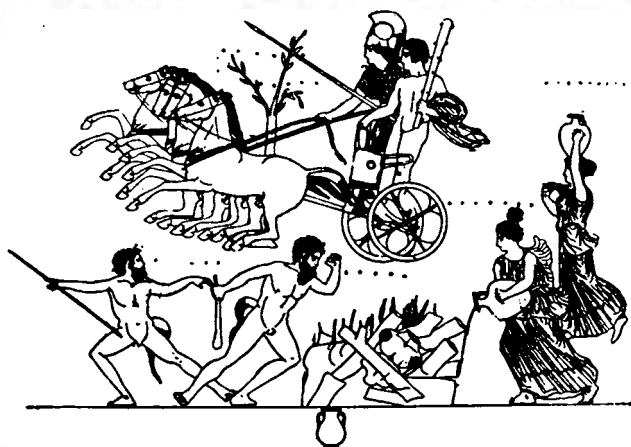
Christ to the Greek mind, appears from the reverence with which philosophers speak of him as the beloved son of Zeus.

The last deed of Herakles is his death and resurrection (*ἔγερσις*). He dies in the flames of the funeral pyre, but rises to renewed life on the height of Olympus, where he is given in marriage to Hebe, the blooming daughter of Hera.

Epictetus says of Herakles:

"He knew that no man is an orphan, but that there is a father always and constantly for all of us. He had not only heard the words that Zeus was the father of men, for he regarded him as *his* father and called him such; and looking up to him, he did what Zeus did. Therefore he could live happily everywhere."

The philosopher Seneca echoes the same sentiment when he contrasts the unselfishness of Herakles with the ambition of other



HERAKLES TAKEN UP TO HEAVEN BY ATHENA IN A CHARIOT.¹

Picture on a Lucanian vase in Munich. (After *Mon. Inst.*, IV., 41.)

heroes, who may be brave and courageous, like Alexander the Great, for instance, but are not saviours. He says:

"Herakles never gained victories for himself. He wandered through the circle of the earth, not as a conqueror, but as a protector. What, indeed, should the enemy of the wicked, the defender of the good, the peace-bringer, conquer for himself either on land or sea!"

HEROES.

Odysseus, like Herakles, is originally the sun-god and his wanderings through the earth are the course of the sun over the world. Like the sun, Odysseus descends in the far West into Tartaros and comes up again.

¹ Satyrs gaze with astonishment at the pyre, the flames of which are extinguished by two nymphs, called Arethusa and Premnesia.

The *Odyssey* is the Greek version of the *Râmâyana*, a Brahman story of similar significance, while the *Iliad* finds its counterpart in the *Mahâbhârata*, the legend of the great war.¹

Other heroes, such as Theseus (i. e., he who brings about settled conditions, the organiser, or legislator), Bellerophon, Perseus,

WEDDING OF HERAKLES AND HEBE.²
(Gerhard, *Apul. Vasenb.*, pl. XV.)



the Dioskuri, etc., are all slayers of monsters and are, if we make allowance for local coloring, variations of the same fundamental

¹ These two Indian epics are unquestionably of great antiquity, but it is interesting to note that (as Weber endeavors to prove) Valmiki, a late redactor of the *Râmâyana*, must have been familiar with Homer. He lived somewhat after the beginning of the Christian era when Greek influence began to make itself felt in India.

² Between Hebe, the girlish bride, and Herakles who is here youthful and beardless, hovers Eros. Zeus and Hera are on the left, Aphrodite with Himeros and two of her maids, Charis and Peitho, on the right. Underneath Dionysos arrives in his chariot, drawn by panthers. From the opposite side Apollo and Artemis arrive, while Eunomia and Euthymia receive the guests.

idea that permeates the whole of Greek mythology, of the same theme of saviourship, which is most apparent in the Herakles myth.

The story of Demeter's daughter and her sad fate finds many parallels in the legends of dying gods and heroes, among which the most typical is the tale of the death of Adonis. Like the Herakles myth, it is of Phœnician origin, the name Adonis being nothing



PERSEUS LIBERATING ANDROMEDA.

Ancient relief. Capitol. (From Springer, *Handb.*, p. 256.)

else than the Greek form of the Semitic title of God, Adon, i. e., Lord, a word which is used in the same significance in the Bible. Adon, the sun-god and husband of Astarte, the Phœnician Venus, dies and is resurrected. He is the same as Tammuz for whom, as the prophet Ezekiel, Jewish women wept in the temple.



THESEUS, THE SLAYER OF THE MINOTAUR,
Receiving the thanks of the rescued victims.¹ (Fresco in the Campagna,
from *Mus. Borb.*, X., 50.)



JASON SECURING THE GOLDEN FLEECE.²
Vase of Naples. (Reproduced from Heydemann, *Hall*,
Winckelmannsprogramm, 1886, pl. 3.)

¹ This picture, frequently copied in frescoes, has become famous through Goethe's admirable description which appears in Vol. XXX., 425 f. of his collected works (edition Cotta).

² The hero is accompanied by Medea and two warriors. A satyr's head is visible in the tree and the bust of Nike appears in the sky.

The festival of mourning with subsequent rejoicing that was celebrated in Cyprus for Adon-Tammuz, was changed in Christian times into a kind of Christian mystery-play of the death and resurrection of Lazarus. Thus the underlying ideas remain the same with the change of time.



JASON RESCUED BY ATHENA FROM THE JAWS OF THE DRAGON.¹
Attic vase from Cære. Roscher, *Lex.*, II., p. 85.



SAMPLES OF MONSTERS ON ÆGEAN STONES.²
(*Arch. Ztg.*, 1883, pl. 16, Nos. 7, 3, 16.)

¹ Happily the interpretation of this picture is definitely determined by both the name ΙΑΣΩΝ and the golden fleece hanging on the tree. The picture does not represent the common version of the legend, but is interesting as showing that Greek mythology also possessed its Jonas who had been in the belly of a monster. A similar legend is told of Herakles, an illustration of which is given on page 650.

² The Ægean stones, the *Insulsteine* of German archaeologists, so called because found on the islands of the Ægean sea, exhibit the beginning of glyptic art, imported into Greece from the Orient.

A favorite legend which is frequently chiseled on sarcophagi, on account of its promise of the soul's return from Tartaros, is the story of Admetos and Alkestis. The hero Admetos (i. e., the invincible, one of the many representatives of the god of death) woos Alkestis (i. e., the Strong One, a form of Persephone) the daughter of Pelias. He shows his prowess by appearing in a chariot drawn by a wild boar and a lion. The bridal chamber, however, is filled with snakes (a symbol of the goddess of the earth) and Admetos

AMULETS.¹

Necklace of various votive symbols, found in the Crimes.
(Jahn, pl. V., 2.—*B. D.*, I., 76.)



GOLD CAPSULES, OR BULLAE.

Worn round the neck as receptacles for amulets. (After *Arch. Journ.*, VI., 113, and VIII., 166.)

is doomed to die. Apollo then pleads with the Fates to spare his life, and the three goddesses allow him to send a substitute to the Under World, whereupon Alkestis declares her readiness to sacrifice herself for her husband, and becomes thus the ideal wife, faithful unto death. Persephone in recognition of her heroism, however, allows Alkestis to return to life.

[TO BE CONTINUED.]

¹ Votive figures appear to have been used in ancient Greece and Italy as much as they are now by the devotees of the Greek and Roman Catholic Churches.

THE UNSHACKLING OF THE SPIRIT OF INQUIRY.¹

BY DR. ERNST KRAUSE (CARUS STERNE).

IMPORTANT above all in the development we have been considering was the growing opposition which arose against the prevailing methods of philosophy. Concerning the relation of thought to being, and of the concepts which we form of things to the real nature of these things, the idealism introduced by Plato had hitherto prevailed; that is, the view that the general concepts (*universalia*) were actualities existing before and outside of the objects themselves, and were originally present in the Divine Mind as archetypes before their incorporation; and that from the Divine Mind they had emanated to the human mind, which is derived from it; whence it is possible through pure reason to find out the essence of things, that is, truth. These notions of the Idealists (who gave themselves the significant name of Realists), as we have seen, although they were somewhat limited by Aristotle, had been opposed from olden times by the Stoics, for they had quite correctly recognised the notions of genus and species as mere abstractions (*nomina*), and in contrast to the so-called Realists were called Nominalists. This had been merely an academic dispute until the Church took the part of the Realists, and in 1092 at the Synod of Soissons condemned the canon, John Roscellinus of Compiègne and his teaching, because he had ventured to apply the nominalistic views to the conception of God.

The dispute became especially warm, when the Franciscan, William of Occam, a pupil of Duns Scotus (*doctor subtilis*), who was the opponent of Thomas Aquinas, refused to concede to the operations of the mind anything but their subjective existence and truth. The Church felt how greatly its dogmas were endangered by

¹ Conclusion of the article by the same author in the preceding *Open Court*.

this intellectual revolution, and from 1339 on, repeatedly forbade the use of the books of William of Occam, especially in France, whence his followers took refuge in the German universities, until in 1481 when the teachings of the Nominalists were allowed even in Paris. At bottom the issue in this controversy was the overthrow of the scholastic methods of teaching, and when Hugo Spitzer in recent times praised the Nominalists as "Darwinians before Darwin,"¹ his expression was appropriate in this respect only, that by eliminating the concepts of genus and species from the realm of reality they dealt the methods of scholasticism just such a blow as Darwin with his new explanation of the concepts of genus and species dealt to scholasticism in natural history. Their real influence was essentially critical and clarifying; of positively constructive contributions to knowledge, such as Darwin's, they made few.

Much more far-reaching was the doctrine emphasised by Roger Bacon (died 1292), called by his followers *doctor mirabilis*, that we cannot learn nature from the Bible and old books, nor interpret it from our inner consciousness, but that we must see with our own eyes and study the Creator in His works, and must even learn their significance by investigation and experiment. However, for these and other heresies he was kept in the dungeon of his monastery for years and punished with such severe fasts that he nearly died of hunger. Bacon's thought, that beside the old Scriptures there was a second source of knowledge of the greatness of God, was embraced with the greatest enthusiasm, especially by Raymond of Sabunde, who taught in Toulouse about 1436. Though a thoroughly devout Christian, he did not hesitate to say in his *Theologia naturalis seu liber creaturarum*, that of the two revelations ascribed to the same author the one found in nature was decidedly preferable to that of the Scriptures, for all men could read the former while the Bible was understood only by the clergy. Nature, therefore, must constitute the alphabet of all teachers, and must be studied first of all as the foundation and source of all the sciences. For it could be misunderstood by no one, not even by a heretic, which might easily occur in the case of the Scriptures, where moreover corruption of the text was not beyond the possibilities. Though the heathen had sometimes misunderstood nature, this could not be so with Christians, and they would find it everywhere in harmony with the Bible.

The Church did not at first pay to the nature-theology of this

¹ H. Spitzer, *Nominalismus und Realismus*, Leipzig, 1875.

unquestionably pious teacher the attention which it certainly deserved; for he professed many ideas wholly out of harmony with the teachings of the Church, notably the theory of the central position of the sun. Only when the German Cardinal and Bishop,



ROGER BACON.

(1214-1292.)

English monk, philosopher, and heretic. Forerunner of the renaissance of science

Nikolaus of Cusa (from Kues on the Mosel, died 1464), the most evident forerunner of Copernicus, openly challenged scholasticism in his work upon *Learned Ignorance*, and taught the motion of the earth and the plurality of inhabited worlds, did the Church gradu-

ally begin to recognise the threatening danger which was involved in the study of nature, so warmly recommended by Roger Bacon and Raymond of Sabunde. Therefore together with the more and more numerous religious heretics, those men were also summoned before the tribunal of the Inquisition whose non-conforming views and teachings were not directly concerned with religion but with the new astronomy and natural history. Pietro d'Abano, Cecco d'Ascoli, Giordano Bruno, Campanella, Galileo, Vanini and others suffered not so much for their actual religious heresies as for their scientific convictions, and several of those who refused to renounce their views were burned at the stake. For even in the case of heretics whose errors lay in the direction of natural history, the Church in her mildness and mercy shrank from the shedding of blood and preferred the purifying flame as a means of extermination.

Meanwhile, the art of printing, so destructive to belief on authority, had been invented. Thus heresies could spread with multiplied rapidity over distant lands, and Pope Paul IV. felt it necessary to establish in 1559 a special council, the congregation of the Index Expurgatorius, whose incumbents were occupied with the examination of recently composed as well as already published works, in order to condemn to strangulation before birth or to a subsequent death by fire those which contained truths hostile to Church dogma. The reopened Council of Trent (1562-1563) settled in detail what must be believed and what regarded as heresy; and the Pope, following the recommendation of Tertullian, forbade, under penalty of excommunication, every unauthorised discussion or interpretation of the decretals, as being the exclusive prerogative of the Papal See. In order to set a good example, he had one of his own writings placed in the Index. The progress of the Reformation had made these measures seem necessary; a definite boundary had to be set between what was to be truth, and that which must not be truth, and the list of forbidden books soon increased like an avalanche. The *Theologia Naturalis* of Raymond of Sabunde, translated into French in 1569 by Michel Montaigne, one hundred and fifty years after its publication, underwent a painful operation in the amputation of the introduction, which treated of the advantage of the study of nature over that of the Scriptures.

Indeed, the universe of Aristotle and the Church appeared to have suddenly become disjointed. The discovery of America had made untenable the formerly current views of the Church concerning the form of the earth and the impossibility of the antipodes. A canon of Frauenburg had dealt the death blow to the be-

lief in the central position of the earth. Then, as always when the current views of the universe are disturbed by great discoveries, and the opinions hitherto regarded as certain truths are shown to be groundless assumptions, reflexions on the danger of investigation and on the errors of human reason became prominent. The study of those processes is so much the more important, because we are to-day experiencing a similar intellectual revolution, beginning with the work of Darwin which shattered beyond repair the theory of creation advanced by Linnæus and Cuvier, a theory which was still affected by the philosophy of Aristotle, and which had barely held its own up to that time as a thing of shreds and patches.

In that time, when men's minds were awaking and, to use the expression of Hutton, "it was a joy to live," every one thought he might believe what he considered reasonable without being obliged to heed the doctrines of the Church. The French jurist and political economist, Jean Bodin, in his *Course in Historical Science* (1566) made bold to attack the story of Paradise, and to retouch the Bible picture of the beginning of the human race, in the light of information from America. Ridicule and satire, such as the freethinkers, Rabelais above all others, poured out upon all things formerly believed and held sacred, grew at an alarming pace, and we can easily understand how even men of calm and sober minds were shaken in their inmost convictions by these attacks.

Of the greatest interest in this connexion is the attitude of the French nobleman, Michel Montaigne, a man of independent judgment and well read in the works of antiquity. He constantly vacillated between the faith of his fathers, the philosophers, the new views, and his own reason, and very fittingly selected for his device a pair of scales with the motto: "What do I know?" His attempts to justify the old views and at the same time take into account the new knowledge, seem indeed, as Jacob Fries recently attempted to show,¹ to have been incorporated in the gloomy brooder, Hamlet, and to have had the greatest influence upon the conception of that character. In his longest essay, the *Justification of Raymond of Sabunde*, he professed (p. 2) to favor the view of the academician, Balbus, emphasising the idea, that animals fare better on the whole than men, in that nature has given them no more reason than they need for their existence, while man has received more than he can use to his profit, and yet not enough to overcome the errors arising from the excess.

¹ *Shakespeare and Montaigne. An Endeavour to Explain the Tendency of Hamlet.* London, 1886.

With the free use of our reason and the ability to govern our actions according to our discretion and judgment, he says, there fell also to our lot "inconstancy, indecision, uncertainty, anxiety,



GIORDANO BRUNO.

(1548-1600.)

Italian monk and philosopher. Burnt at the stake as a heretic.
Specially drawn for *The Open Court* from an engraving in the *Cabinet des Estampes* of Paris.

superstition, worry about what the future may bring, even though it be not until after our death, arrogance, jealousy, avarice, envy, evil and untamable passions, quarrelsomeness, falsehood, faithless-

ness, abusiveness, and curiosity." The simple-minded man, he says, lives without thought of the morrow, happy and content with his lot, without hoping or fearing much from the future; and he would therefore already possess that peace of mind which philosophers praise as the most desirable good without ever being able to attain it.



MICHEL EYQUEM DE MONTAIGNE.

(1533-1592.)

French essayist and philosopher. (From an engraving by Th. de Leu.)

He says in another passage: "In my day I have seen hundreds of artisans and laborers, who lived more wisely and more happily than the rectors of the university, and whom therefore I should rather resemble than the latter." Much thinking, he said, is in its very nature not conducive to the health of the body.

"Animals, by their health, teach us plainly enough how often mental agitation causes illness. What we are told of the inhabitants of Brazil, to wit, that they die only of old age, and which is ascribed to the purity and calmness of their climate, I ascribe rather to the peace and serenity of their minds, free from all emotions and reflexions, from all intense or disagreeable activity, as being people who pass their lives in admirable simplicity and ignorance, without science, without law, without a king, and without any religion whatever. How much suffering is caused by our intensely morbid imagination alone! In order to realise the difference, one need only compare the life of a hypochondriac, constantly tortured by the belief that he is ill or may become ill, with that of a laborer who follows his natural impulses and judges things only according to the momentary impression, without knowledge and forethought, feeling disease only when it exists, while the former often carries the stone about in his mind before he has it in his kidneys; as if it were not enough to endure the evil when it comes, he anticipates it in fancy and even runs to meet it."

The unfortunate singer of *Jerusalem Delivered* whom Montaigne visited in a madhouse at Ferrara, likewise serves him as an example of the pernicious influence of the mind on the body. "Were not his sufferings to be ascribed to this quickly consuming fire, this brightness which blinded him, this acute and intense application of the mind which deprived him of his reason, and this anxious and diligent pursuit of the sciences which has reduced him to a level with the brutes?"

Then Montaigne proceeds to declaim especially against the ever-increasing arrogance and pride of the human reason. Since we have received from nature the faculties of discrimination and free-will, we must use them; but, in doing so, we must never forget the proper caution and reserve. "Our innate defect is self-conceit. Of all creatures man is the weakest and frailest, and yet the most conceited. Although he finds himself lodged in the filth and foulness of this world, in the meanest, most sluggish and most rotten part of the universe, in the lowest story and farthest from the vault of heaven, and although he feels himself bound to the ground in the company of crawling beasts, yet by the power of his imagination he sweeps out beyond the path of the moon and leaves the heavens at his feet." Finally, man thinks that the earth was created only for him, the sun and moon to give him light, nay, even that God himself exists only to create and care for him. From

this same conceit arises the mania for finding out the connexion of all things, and that worst of all misuses of reason, philosophy.

"The first temptation," he says, "which was devised for the human race by the devil, his first poison, appealed to us through the promise which he made with reference to knowledge and understanding, 'Ye shall be as gods, knowing good and evil.' "According to Homer, the Sirens in this same fashion attempted to entice Ulysses into their fatal toils by offering him the gift of their knowledge. His hope of mastering all knowledge is the curse of man. This is the reason why, in our religion, ignorance is declared absolutely necessary for faith and obedience." Montaigne closes these exhortations with a summary of what philosophy has revealed up to his time. He finds that all its efforts have accomplished nothing except to make plainer what Socrates already knew, that we know nothing and can know nothing, but that there is no folly so great as not to be called truth by some philosopher.¹

Moreover, it is not to be supposed that these tirades against the use of knowledge were heard only from the Catholic camp, whence also Agrippa of Nettesheim wrote his book *De vanitate scientiarum*, and Erasmus of Rotterdam, a half-heretic, to be sure, his *Praise of Folly*. Luther himself, who on January 17, 1546, ascended the pulpit to preach against "the accursed harlot, Reason," regarded philosophy in the same light, although, of course, the favorite philosopher of Rome fared the worst. He exclaims: "This doubly accursed Aristotle is a very devil, a dreadful slanderer, an infamous sycophant, a prince of darkness, a real Apollyon, a beast, a vile deceiver of mankind, almost wholly destitute of philosophy, an open and confessed liar, a salacious ram, a confirmed Epicurean." The scholastics Luther characterised with somewhat more deserved abhorrence by the epithets, "grasshoppers, caterpillars, frogs, lice," and so forth. Other reformers, Melancthon and Calvin, for instance, sympathised with this hatred on the whole, even though they did not give it such vigorous expression.²

In the course of time this aversion for science gradually relaxed in the Protestant Church, and since this Church lacked from the beginning such violent means of repression as the Index and Inquisition, it was able occasionally to offer philosophers a refuge, and the whole development of philosophy from Descartes to Spinoza,

¹ Cf. Montaigne's *London Essays*. 1754. Vol. IV., pp. 229, 333, 337, 340, 351; Vol. V., p. 126 etc.

² Cf. Draper. *History of the Conflict Between Science and Religion*.

from Leibnitz to Kant, Fichte, and Hegel took place exclusively in Protestant states. To be sure, Descartes was a Catholic, and at times decorated his hat with effigies of the saints in order to remain unmolested; but in order to cultivate philosophy unhampered he had, like Giordano Bruno, to seek refuge in Protestant states. Thus even the philosophy of Descartes, in spite of its concessions touching the nature of the soul, and in spite of the efforts of Malebranche, entirely failed to influence Catholic doctrines. The philosophy of this Church still rests upon the principles of Aristotle, and independent thinkers, such as J. C. Baltzer and Frohschammer, who show the least inclination to depart in their psychology from the views of Thomas Aquinas, are immediately called before the pope, and their writings placed on the Index.

The consequence of this proceeding has been that free investigation and science could not prosper under the scepter of Church authority; and that by far the greatest part of the scientific work of recent centuries had to be done by open or disguised heretics. True, the Church has often boasted that it could show famous scientists in the ranks of its priests, such as the Jesuit fathers Scheiner, Kircher, and Secchi; but on closer inspection the works of these heroes of the faith are of little value. As in the case of Secchi, they had to profess the duty of the sacrifice of the intellect and stoop to dissimulation, and can in no way compete with such Catholic investigators as Copernicus and Galileo, whose works the Church had condemned. And yet this Church has at last been obliged to admit, although with every possible reservation, that it was wrong; and what formerly caused their representatives to curse science has been for the most part taken up and digested by the present generation without harm to body or soul. The heresies of Copernicus and Galileo no longer rob anybody of his peace of mind. When in the year 1820 in connexion with the examination of an astronomical work of Settele, after a long deliberation in Rome, the author was permitted to teach the theory of the motion of the earth as no longer opposed to Catholic doctrine, the condition was nevertheless imposed upon him that he should add in a note that the statements of Galileo had been condemned because opposed to the general views of that time, and in their sensational form harmful to the masses, who were not yet ready for them.¹

This is the ever repeated song of those who believe with Joseph de Maistre that people can and must be kept stupid, in order that they may be easily ruled and kept from rebellion. It is with man-

¹ Karl Hase, *Handbuch der protestantischen Polemik*. Leipzig, 1862. Page 610.

kind as with children, whose curiosity especially regarding their origin is gratified for a long time with fairy tales, until the truth can no longer harm them. But as for the great questions of life and humanity, the wise say that most men will remain forever children, and will never be mature enough to understand them. Then they cite the verses of Schiller about the man forever blind to whom one must not give the celestial torch of light, and think that they have thus forever disposed of this question. When in the preceding century, the "Age of Enlightenment," people gradually began to see that the Bible account of the six days of creation and of the flood, despite all the efforts of Burnet, Whiston, Woodward, Scheuchzer, and others, could no longer be reconciled with the investigation of the earth's crust and its contents, they felt anew with full force the difficulty of harmonising the Bible with nature. The Berlin Academy of Science in the year 1779 chose as the theme for a prize essay the question, *S'il est utile au peuple d'être trompé?* (*Whether it be beneficial for the masses to be deceived?*) Not less than thirty-three different treatments of this question were submitted, of which, according to Bartholomess, in his *History of the Prussian Academy*, twenty took the negative side and thirteen the affirmative. The judges were evidently greatly embarrassed, for they themselves did not know which side to favor, and gave a decision which earned much derision for their "impartiality," awarding two prizes, one to the best argument for the affirmative, the other to the strongest presentation of the negative.¹

Formerly the prevalent opinion of philosophers affirmed this question with Plato, and even Rousseau, 1762, replied to the Economical Society in Bern that he would take the affirmative of the question whether there be sacred prejudices which should be respected. Even to-day there are still many anxious souls who decide, though unwillingly, in favor of deception. Almost as questionable a proposition is that of the physiologist, Rudolph Wagner, to suffer religion and science to grow independently side by side and for the sake of peace of mind to adopt what he calls "double-entry bookkeeping," or, in plain words, duplicity. Others have recommended concealing one's inmost convictions, which are based on their investigations, as soon as they prove to be opposed to the statutes of State and Church; still others would carry out the proposition of Renan, who would teach an esoteric doctrine, a more spiritualised religion for the educated (as the Greeks are said to have done in the Eleusinian Mysteries), and an exoteric and more

¹ Cf. John Morley's *Fidelity to One's Convictions*.

earthly religion for the masses. There can be no doubt what the answer to these propositions should be; for they advocate in place of truth a system of scientific hypocrisy, and forget moreover that in our age of printer's ink it would be wholly impossible for the temple guardians to preserve such a secret doctrine.

One may concede without hesitation that the positiveness of the promises of religion are more satisfying to the soul of the uneducated man, than the results of science, which never represent a totum, and have no answer to final questions. The light of knowledge may be painful to those unaccustomed to it, as unmodified sunlight is to the eyes, and many may prefer to spend their days in boudoirs with latticed windows and colored lights, but science, to which we owe such far-reaching material and intellectual advancement, the glory of our generation, cannot stop on their account, and no demand of this sort has any prospect of winning general approval. What is it, then, that makes the results of modern investigation appear dangerous in the eyes of so many men? Can the truth, as such, be harmful, and therefore objectionable, supposing that we had the truth, and that it opposed all traditions?

The answer will be, no; but the remark will be added that the truth is no staff for halting souls, and that dazzled eyes cannot endure it. Consequently, the harm lies not in scientific knowledge, but in the weakness of souls and eyes. Here, then, is where the mistake lies, and where relief must be administered. It is not the new truth which threatens danger, but the old error, in which the human mind has been kept so long, and which some would like to retain longer. The danger is that all our institutions, home, school, church, public life, social order, and systems of government, being based on and adapted to these old errors, should fail to perceive that it is their business gradually to adapt themselves to the better knowledge. Only on condition that they do this can the widening of the chasm and the violent collapse of what has become antiquated be avoided. Attempts to bridge the chasm, which are the order of the day in France and England, where they are still trying to harmonise the Bible with scientific investigation and to make the days of creation correspond to the geological ages, only win for those who make them the suspicion of hypocrisy and a purpose to deceive the people, while they render the inevitable collapse more dangerous.

In this connexion the excellent proposals of Condorcet should not be forgotten: "The transition from error to truth," he wrote over a century ago, "may bring with it certain evils. Every great

change has several such evils in its train, and even if they are collectively less than the evil against which the change is directed, yet the utmost should be done to diminish them. One must not only do good, but must do it in a good way. Certainly we are to remove old errors, but since they cannot all be removed in an instant we should do as a good builder does in pulling down a house: he knows how the separate parts are joined together, and directs the tearing down so that a dangerous collapse is avoided."

It would be too much to affirm that no progress can be noted in this direction. Truths which were considered so dangerous several hundred years ago as to be combated with the Inquisition and the stake, may be fearlessly expressed to-day, and are even taught in the schools. To be sure, those investigators who add to the general conception of the universe new points of view, and fearlessly express their convictions, will have to submit as formerly to excommunication by the temple guards. The *French Church Journal* wrote of Alexander von Humboldt, as he himself good-humouredly reports:¹ "They say the assassin of souls has literary merit. This will be no excuse. Satan has more wit than M. de Humboldt."

But upon the whole no one longer doubts that every one has his incontestable right to assert and announce as truth all that he has recognised as correct, and that it should be the duty of the Church willingly to surrender those doctrines which are opposed to the general world-views of the time,—especially if they in no way affect the essence of religion,—and to acknowledge that they are a part of an ancient metaphorical language of human origin. On the other hand investigators, to meet this concession, must frankly and honestly recognise their limitations, and in the matter of final causes, which elude the reach and grasp of human reason, give religious feeling its rights, lest they render the mission of the Church more difficult by an unscientific negation. Only a science, which recognises its own limitations, while vindicating its real right in the matter of definite knowledge, can boast of having done its duty in both directions, and can look calmly into the future. The ideals of mankind will of course change somewhat, for the better condition of humanity must no longer be sought in the mists and errors of the past, but, according to the principles of the doctrine of evolution, in a more enlightened future.

¹ In an interesting letter of Feb. 10, 1857, to A. von Klöden in the *Magazin für die Litteratur des Auslands*, 38. Jahrg. (1869) p. 573.

THE ELEUSINIAN MYSTERIES.

BY THE REV. CHARLES JAMES WOOD.

II. PRIMITIVE RITES OF ILLUMINATION.

ON the psychologic or pathological side, now, we find the same parallel between the primitive sacred dramatic dance and the Eleusinian rites as implied in the Attic theatre. For if we examine closely into the methods and means of a sacred secret organisation, say that of the Sioux and of the Nagualists of the Pueblo Indians, we find all the factors of character transformation, purifications by water and by fire, fasts and sweats, ordeals of pain and terror, auricular confession, narcotic and intoxicant food and drinks, prescribed dances protracted to point of frenzy or hysteria, all followed by trance, vision, and dread vows to secrecy. Less and more obscurely we see allusions to these characteristics of the Eleusinian Mysteries in the Greek plays. The playwright had to be excessively guarded, but said in effect to the mystæ or to the epoptæ, "He that hath ears to hear, let him hear."

Lobeck, in his *Aglaophamus*, quotes from Formicus, *De Err. Pr. Relig.*, p. 45, an account of the consummation of certain mystic rites, in which the priest "whispers in a gentle murmur" certain words of a like tenor—the god, however, and not the neophyte, strangely enough, being represented as the sufferer of severe trials

"Be of good cheer, ye initiates, in that the god is delivered; for the deliverance from his evil is of you."

Take an instance. It is evident that Euripides wrote the *Bacchæ* as an apology for the Dionysiac cult. The chorus sings

"Oh blessed and fortunate is he, who having come to know the mysteries of the gods, keeps safe from polluting sin, joining Bacchic rites upon the mountains with holy purifications."

Here is an allusion to the preliminary purifications of the can-

ἱθαρχεῖτε μύσται τοῦ θεοῦ ἀσωσμένου, ἔσται γὰρ ὑμῖν ἐκ πόρων σωτηρία.

didates at Eleusis, by lustration or baptism. Again in the same play, lines 902-905, the chorus sings meaningly:

"Happy is he who hath known storm at sea and found the shore. Happy also is he who hath surmounted severe ordeals." (Cf. Lobeck, *Aglaophamus*, 648; Sandy, *Bacchae*, 199.)

In connexion with other things that follow I take this as an allusion to some Eleusinian form of initiation.

It is not insignificant that in a fragment of the *Tympanista* of Sophocles, the identical thought occurs in nearly the same words, viz.:

"Ah me, what greater joy couldst thou have than attaining the beach, and that hardly, and afterward beneath the roof with mind tranquilised, to listen to the mighty tempest."

Add also this unmistakably dogmatic and pointed statement of the chorus of the *Iphigeneia at Tauris*, 1193:

Θάλασσα κλύζει πάντα τ' ἀνθρώπων κακά.

"The sea cleanses away all the sins of men."

At another place we are told that from a distance, the torches of those who were celebrating the Mysteries of Eleusis appeared at night like the host of stars about the shores of the bay.

The reasonable inference from this is that in the Eleusinian mysteries there was a rite of baptism, or lustration, or ordeal by water and possibly all in one, as in all the sacred dances and primitive cults of the world, these baptisms or lustrations occur. Often they are for the purpose of causing rain, at other times they are simply ceremonial purifications.

Euripides seems to have supposed that the worship of bread began prior to the adoration of wine, for Tiresias in the *Bacchae*, 274, delivers himself of this statement:

"Two, young man, are the first elements of human life; Demeter the goddess; she is earth, call it whatever name you choose, she nourishes men with dry viands; but the son of Semele, who comes as her mate, has discovered the moist drink of the grape, and introduced it among mortals."

To any student of folklore it is apparent that at this place Euripides touches upon the primitive worship of bread and wine. It is true that the already developed theology of this cultus is found in the ancient religions of India and Persia. But it is not necessary to suppose with Euripides that the mystagogues of Eleusis derived their ceremonies from thence. The Inca of Peru was also a pontifex maximus of the sacred chalice. The cup of the holy grail is the central point of most solemn Walpi, Moki, and Zuñi ceremonials.

The Spaniards, when first in Mexico, were horrified at what they took for a mocking travesty of the Mass. The Nagualists were found to have a Eucharist where they administered a narcotic mushroom, and fiery pulque. In reality this was not invented to caricature the Mass, as De la Serna supposed. To the Indians it was a pious immemorial rite, but the Spaniards regarded it as the orthodox of to-day would regard a black Mass of Canon Docre or of Abbé Constant, or of any other declared Satanist at Rome, Paris, or Chicago.

Aristophanes (*Birds*, line 436) ventures upon the irreverence of a humorous allusion to this grail worship in the Mysteries, for he recommends Peisthetairos to arm himself with pots and bowls. The worship of bread and wine was not imported into Greece. Folklore demonstrates that it is primitive and autochthonous. The bowls of the Zuñi Spider Woman, and the so-called magic bowls of the Jews brought from Niffer, belong to the original and universal worship of the divine Potter, whether at Eleusis, or at Thebes, or at Jerusalem.

Being primitive its antiquity is past all calculation. Is it anterior to the stone age? Probably. The hoary antiquity of this rite invests it with a sacredness and solemnity that enshrines it upon the high altars of all the occult mysteries and secret brotherhoods of the world.

When you read in the *Avesta* and the Vedic hymns how holy and sanctifying is the drink of the Haoma or Soma, when you trace in the more solemn and hidden worship of the Hindus, Navajos, Moki, Sioux, and Peruvians, the adoration of the holy grail, containing the elixir of life, the blood of the gods; when you perceive how by development of doctrine the divine drink of Persia and India became the divine Being, even God himself, you can without difficulty understand Euripides when he declares:

"This god is poured out in libations to the gods in order that men may thereby acquire blessings." *Bacchae*, 284.

The divine drink is the cup of wisdom as well as life. Folklore of Magyars and Bretons, of Russians and Arabs amply illustrate this. How often have we witnessed the final remnant of that notion in divination by the teacups! Primitive culture universally, I think, reverences the cup of wisdom. That it occurred as a factor in the Mysteries of Eleusis we need not doubt. The peculiar drink of Demeter at Eleusis was called *κυκεών*. Though we do not know exactly the character or ingredients of this draught, we may conjecture from the fact that the word *κυκεών* is elsewhere used to de-

note a magic philter. It is the bowl of a Circe and of a Kriemhilda. Aristophanes (*Peace*, 712) implies that it was drunk by the mystæ to counteract the effects of the severe nervous strain to which they had been subjected during their initiation at Eleusis. Teresias in his address to Pentheus speaks of the divine drink under veiled language, and the chorus of the *Bacchæ* 298 goes on to chant :

"This divinity [wine] is a prophet, for Bacchic raving and mania have much soothsay in them."

In the world's folklore the idea of divine life or wisdom in a mystic drink is often associated with the worship of fire. The cults of fire and of the drink of the gods belong together. In the Veda the heavenly bird descends upon the tree and the liquor of that tree became a divine and inspiring draught. The divine bird was the fire from heaven, lightning. (Hillebrandt, *Vedische Mythologie*.)

Æschylus undertook to explicate exoterically the esoteric fire doctrines of Eleusis. The theme of the Promethean trilogy was the theft of the fire of the gods. The first play of this trilogy was entitled Προμηθεὺς Πύρφορος. No wonder that Æschylus was charged with divulging the secret of the Mysteries. He was too plain in his allusions. Prometheus is from the Sanscrit root of *pramantha*, a fire-mill. He was at the same time the special patron of potters, who made wine jars. His analogy to the serpent of Genesis is suggestive. He gives wisdom as well as life, and teaches divination by fire.

Rightly then is Iacchos, another name for Dionysos, the wine god, addressed in that fine chorus of Sophocles's *Antigone* as (line 1146)¹ "leader of the fire-breathing stars, president of the nightly music of the spheres, begotten child of Zeus," and "leader also of the torch-bearing revellers of the sacred Mysteries, who roam all night the mountain sides." From this we may infer that fire as well as the holy grail was an element of the Mysteries of Eleusis.

According to the myth, which is at any time a summation of folklore, the Eleusinian Dionysos, in his birth and infancy, had been nourished at the fountains,—"the fountains of Dirke and the springs of Ismenos."

This tradition is quite consistent. That which renders the water or wine life-giving and wisdom-giving is the spirit from lower unseen regions, the ghost-land, the region of spirits who rising up

ἰὼ πῦρ πνεόντων
 χορὰ γ' ἄστρον, νυχίῳ
 φθεγμάτων ἐπίσκοπε.
 καὶ Ζηνὸς γένεθλον.

—*Antigone*, 1146.

thence in the waters, and then into the vine as sap, at length may become wine, the medium through which the god or the spirit enters into man, or the manes of the departed takes possession of him, so that he becomes *gott-trunken*, a maniac, a god's fool, or an inspired prophet. Personal responsibility is lost at such a time.

In the *Bacchæ* you see how the raging women, celebrating their Mysteries, even Agave, are not reckoned the murderers of Pentheus, but it is said to be the god in them, even Dionysos from Hades with the ghosts' chalice and with murky fires.

Christian art has inherited something from this folkfaith, for Saint John, the Evangelist of the Word, the Logos or Wisdom principle, is represented often with a chalice, the holy grail, out of which a serpent erects himself. Gnosticism carried this symbol from folkfaith or from Eleusis into Christian art.

Since all wisdom-drinks come from the Under World, because the springs well up from the earth, and the blood of the trees and vines comes up from the ground, we need not feel surprise to find that Dionysos merges at times into an infernal deity. I think that it was a Christian father who points out that Dionysos is the Greek Osiris, at once the king and judge of the ghosts, and also the divine wine, the life-blood of the universe, who is celebrated in the quatrains of Omar Khayyam.

According to Egyptian lore the soul of the dead became united with Osiris, so that in the *Per-em-hru*, commonly called the Book of the Dead, which is the compend of Egyptian theology, the dead person in question is termed always Osiris N. This same belief concerning the dead is expressed by Sophocles in the *Electra* II., 837-840. There Amphiaraos, though defunct, still inspires the oracles, for he has become identical with the Soul of the world (840 παμφύχως ἀνάσσει).

Shelley utters the same belief in his *Adonais*, and Tennyson verges upon it in *In Memoriam*. I believe this to have been one of the higher doctrines of Eleusis. In some instances the rites of Dionysos are plainly a propitiation of the souls of the dead and of the god of dead souls.

The *Philoctetes* of Sophocles, lines 448-450, makes a covert allusion to this,

"How the gods rejoice to send back from hell the wicked and the crafty!"

Also in the same play, line 797, there is an evocation of death.

"O Death, Death! Day by day, forever I call upon thee,—canst thou never come? O child, O thou of noble birth, come, overwhelm me in the Lemman, the

wished-for fire, O high-born. I, even I, thought meet to do this office for the son of Zeus, for the sake of those weapons which now thou keepest safe."¹

The same occurs in *Ajax*, line 854. Perhaps then necromancy survived in the Mysteries of Eleusis. I mean a necromancy similar to our modern spiritism. For hypnotic suggestion was not then unknown, even if it was not understood.

Now in undertaking to twist together these strands of folkfaith and folklore of the Mysteries of Eleusis, to which covert references occur in the Greek drama, some casual repetitions of detail may be pardoned me. The substance of my inferences from the Greek plays is that the occult ceremonies at Eleusis were a highly-developed and dramatic sacred dance,—using the term *sacred dance* as it is used of the liturgy and ritual of a corn festival or a wine festival, or rain or fire festivals of primitive culture.

The sacred dance is the most important institution of primitive peoples, for it conserves and expresses their chief civil and religious beliefs. It is the foundation of the primitive State and Church. In regions as far apart as the Niger and the Yukon valley, the Nez Percés Indians and the Arabs, the sacred dances with their liturgies enshrine all the folklore and theology, all the politics and religion of the several peoples. Still amongst us the sacred dance survives, in the revival meetings, in the ecclesiastical processions, in beating the parish bounds, in civic, political, and military processions, in the lodges of secret brotherhoods, in the cake-walk, and in the triumphal pomps of kings and emperors.

Out of the sacred dance came the drama. As the stage of Athens developed, conservatism bore away the primitive sacred folklore of the Greeks to Eleusis, and there hid it with exaggerated secrecy. In primitive culture it is everywhere necessary that one should be initiated into the correct steps of the ceremonial circuit or sacred dance before he becomes an acknowledged citizen or member of tribe, or of his brotherhood, be it craft-guild, soldiery, or priesthood.

Chinese freemasonry, I am told, and Mormonism, and the tribal constitution of Congo negroes, make the learning of the secret and traditional steps and figures of the sacred dance a condition of fellowship. In the Abyssinian Christian Church the sacred dance

¹ ὦ Θάνατε· πῶς δὲ καλούμενος
οὕτω κατ' ἡμαρτοῦ δύνη μολεῖν ποτε;
ὦ τέκνον ὦ γενναῖον, ἀλλὰ συλλαβῶν
τῇ Λημῇ τῇ δ' ἀγκαλουμένη πυρί
ἐμπρησον, ὦ γενναίε· κάγω, τοι ποτὶ
τὸν τοῦ Διὸς παῖδ' ἀντὶ τῶνδε τῶν ὅπλων,
ἃ νῦν σύ σώσεις, τοῦτ' ἐπηξίωσα δρᾶν·

is a *peculium* of the clergy. Something like this is the concern of the Sacred Congregation of Rites at Rome and of the *Rituale Romanum*. The Mysteries of Eleusis were probably a glorified sacred dance, which dramatised the most ancient of the religious ideas common to all men, and legends peculiar to the Greek tribes. Some loans also may have been made, but it is unnecessary to assume them. The psychic unity of mankind is enough to account for similarities.

Into this secret brotherhood, which like the freemasonry of our own time preserved in sacred secrecy the ideas, symbols, customs, and ceremonies of folk of remote antiquity, the best men of Greece were elected and initiated. They were taught the sacred dance of Eleusis and all that dance comprehended. The step was learned, which fixed their social and religious rank. This we are justified in concluding from the opening words of the *Bacchæ* of Euripides, —where the god Dionysos relates how

"Throughout Persia, Arabia, and all Asia (Minor) he had established his mysteries by dancing them (i. e., teaching the mystic steps of the holy dance), in order that he might be an epiphany of god unto men."

Further passages from the plays it is superfluous to adduce. This is sufficient to show the general character of the Dionysiac rite at Eleusis.

Later development of Eleusinian doctrine ascribed to the Mysteries power to save beyond the grave. Like the Egyptian Book of the Dead, they assumed to teach the soul how to reach heaven after death.

In the *Frogs* of Aristophanes, Hercules describes to Bacchus the Under-World, associating the Mysteries very clearly with the doctrine of the life after death.¹

"Hercules: Afterwards thou shalt see snakes and all manner of frightful monsters.

Bacchus: O, don't try to frighten me; you shan't turn me back.

Hercules: Then a vast swamp and eternal cesspool. And within are those who have done evil. . . . Farther on, there will be heard on all sides a sweet concert of flutes, a brilliant light, as here, bowers of myrtle, happy groups of men and women, and the loud clapping of hands.

Bacchus: Who are the happy ones?

Hercules: The initiated."

Foucart gives a mortuary inscription from Petilia which lies parallel with the above.²

¹ Mr. Cecil Smith, "Orphic Myths on Attic Vases," in *Journ. Hellenic Studies*, XI., 346, gives testimony to the faith that initiates had in their immunity from *post mortem* penalties.

² *Εὐρήσεις δ' Ἀίδαο ὄδῳ ἐν ἁριστέρᾳ κρήνῃ.* α. γ. λ.

"In the house Hades you will come upon a well at the left and a white cypress; take care not to approach this well. You will discover on the other side a spring of cool water flowing from the Lake of Memory. Before it are sentinels. Say to them, I am the child of the earth and the starry sky, but my origin is celestial. This you know. I perish of thirst, give me quickly of the water which flows from the Lake of Memory. They will give you to drink from this divine source, and you will reign forever with the other heroes."

Here we find several elements of the Mysteries, a descent into hell, the drink of everlasting life, and the twofold path. Curiously this twofold path stands at the beginning of the *Didache*, or Teaching of the Twelve.

M. Foucart recognises another fragment of the Eleusinian ritual in an epitaph from Thurii, which runs:

"When thy soul has left the light of the sun, take the right-hand path as every guarded person will. . . . Take the right-hand path to the fields and sacred groves of Persephone."

The *Antigone* of Sophocles takes as its theme this cultus of the dead. So sacrosanct does Antigone regard the right of sepulture that she declares that it belongs to the "unwritten laws of the gods," νόμιμα ἀγραπτα θεῶν,—"which are not of to-day or yesterday, but abide eternally."

It is found upon examination that usually the sacred dances of primitive peoples are accompanied with fastings, sweat baths, and narcotic or inebriating drinks. These customs have the object of putting the candidate into a condition to submit to hypnotism and to such visions as may be suggested to him in such a state.

It is curious, even if quite reasonable according to the theory which I have broached, that in the Dionysiac rites we should come across a survival of the primitive serpent-dance. The serpent and water-spring upon the Acropolis of Athens would naturally be near Athene, the goddess of wisdom. But Dionysos himself is supposed to have assumed at times the form of a dragon (lines 101, 1019 of *Bacchae*). Also the Bacchantes are crowned with snakes, etc.

For a like reason the frogs whom Aristophanes introduced in covert derision, belong to the lower regions where are the wise dead, the Under World, into which descends Bacchus to hear the controversy between Æschylos and Euripides.

Now in primitive culture these snake-dances and frog-dances were performed not only to dramatise a tradition, a myth, or a legend, but also for a material purpose, namely, to cause rain—rain enough for copious harvests.¹ The notion of sympathetic

¹ Cf. Tusayan Snake Ceremonies, J. W. Fewkes.

magic accompanied the performance. From more passages in Greek plays than I need quote, we may see that this notion of sympathetic magic had not become completely extinct in Greece, but preserved in the esoteric functions of the Eleusinian Mysteries.

The mention of magic suggests another point hinted at in the drama. The *Knights*, 409, and the *Birds*, 510, hint that the scepter of the Eleusinian mystagogue was crowned with the head of a bird. But that is not my point. What in origin were the rods of the mystæ of Eleusis, the wands of the Buddhist bonze, the rods of the chiefs of the Walpi in the flute-dance, the thyrsæ of the bacchantes,—what were these originally but the arrow,—the arrow which stood for its owner, hence the chief instrument of magic and divination, the conjuring stick which belongs to the cosmic quarters? The folklore of the divining rod and the wizard's wand is familiar. It probably had some place in the Mysteries of Eleusis, and was symbolised by the thyrsos.

Another reason for the conjecture that the primitive sacred dance was the origin of Greek drama, and the essential character of the Greater Mysteries at Eleusis, has been already hinted. It is the use of masks. These masks in both cases are strictly traditional and conventional. The *katçina* of the Moki and the *propon* of the Athenians are essentially identical.¹

Examine the collection of masks in the National Museum and you will be struck with their identity, mask for mask, of many and widely separated races. One idea underlies all: it is the primitive conviction, that he who dons a mask, *persona*, becomes thereby the personage, human, diabolical, or divine, that the mask represents.

If it be true that the Greek theatre was separated from the Greater Mysteries only by the process of differentiation in the course of evolution, then we may infer that the sacred dance with masks formed the basis of the secret ceremonies at Eleusis. Consequently on the Greek stage all the players were masked.

It is possible that at Eleusis this liturgic dance—though expanded into a dramatic ritual lasting throughout days—still retained something of its primal purpose as a ceremonial circuit, a circuit made to unify the gods of the world-quarters. I have given some reasons for suspecting that the central object of this ceremonial circuit was at one time bread, at another wine. In some cases primitive people unite the two in the cosmic cup. The wine-cup

¹ Tusayan *Katçinas*, J. W. Fewkes.

of Dionysos and the corn of Demeter were brought forth as by Melchizedek of the Semetic tradition.

Not seldom is the sacred chalice a magic cup. After primitive man has propitiated the spirits of the world-quarters, drawing upon the sand, or painting upon a skin of beast, a cross, or a swastika, he sets in the centre the mystic cup, the world chalice, the prototype of the Sangreal, and then begins the solemn circuit. Perhaps he intends to learn the temper of the gods of the world-quarters, four, six, ten, or sixty-four, according to his notion. Hence arises magic, sortilege, divination and divinatory games. I suppose these practices naturally had their place at Eleusis. All gambling, games of chance, were originally for the purpose of divination.¹

As a sample of contemporary folklore derived from these early rites, let me instance the custom of a card-player who to change his luck rises and walks around the table or around his chair. It is a survival of the ceremonial circuit and of propitiating the gods of the world-quarters.

Associated with crude customs and the most barbaric ceremonies are always anywhere in the world profound and subtle religious ideas, fine feelings, and exalting aspirations. No doubt the intellectual progress of Greece sublimated the cruder doctrines at Eleusis, and theosophy developed there alongside folklore. Nevertheless, the student of language becomes amazed at the spirituality implied in the most ancient word-forms of the Indo-Germanic languages, because these forms reveal that our Aryan ancestors, whether on the shores of the Baltic sea, or on the slopes of the Himalaya mountains, or on the southern coast of the Mediterranean were capable of ideals and speculations as transcendental or spiritual as those of Meister Eckhart and Robert Browning. The anthropologist gladly testifies to the spirituality of the religious thought of the Pueblos and the Bushmen.

We need not fear to recognise a lofty spirituality in the sacraments and symbols, in the liturgic dances and prehistoric mystery plays, which constituted the esoteric Mysteries of Eleusis. Is not God the All-Father? And were not the ancient Greek and Hindus and Finns and Mayas his children as well as we? And when they adored God, should He scorn them because their forms of worship were grotesque and mingled with crudities?

St. Hippolytus, in connexion with the passage relating to the exhibition of an ear of wheat in the Eleusinian celebration, goes on

¹ Cf. *Korean Games, Chess, and Playing Cards*, by Stewart Culin.

to speak of the esoteric doctrines, taught by the hierophant ; which Hippolytus at once contrasts with the "Lesser Mysteries," and associates with Christian doctrine.

"But the Inferior Mysteries, he (the hierophant) says, are those of Proserpine below ; in regard of which Mysteries, and the path which leads thither, which is wide and spacious, and conducts those that are perishing to Proserpine, the poet likewise says :

"But under her a fearful path extends,
Hollow, miry, yet best guide to
Highly-honored Aphrodite's lovely grove."

"These, he says, are the Inferior Mysteries, those pertaining to carnal generation. Now those men who are initiated into these Inferior Mysteries ought to pause, and then be admitted into the great or heavenly ones. . . . For this, he says, is the gate of heaven ; and this is a house of God, where the Good Deity dwells alone. And into this gate, he says, no unclean person shall enter, nor one that is natural and carnal ; but it is reserved for the spiritual only. And those who come hither ought to cast off their garments, and become, all of them, bridegrooms, emasculated through the virginal spirit. For this is the virgin who carries in her womb and conceives and brings forth a son, not animal, not corporeal, but blessed forevermore."

Pindar says :

"Happy is he who has seen them (the rules of Eleusis) before going to the infernal regions ; he knows the end of life, indeed ; but he knows the God-given beginning."

So also Sophocles (*Fragm.*, 348) :

"O thrice happy are those mortals who having beheld these mysteries depart to Hades ; for to them alone there is life given ; but to all the rest all things there are evil."

The point now reached seems to be so evident that the wonder is why have subsequent ages not guessed the general topic of the mystic and occult doctrines of Eleusis. Those doctrines are ecumenical and Catholic. They belong to the psychic substratum of human nature. Consequently they are common to all sacred and significant ceremonials. They belong to all secret rites both ancient and modern.

In a future paper I may present some cases of survival and revival, at our own day, and of influence of occult methods of the Association of Eleusis.

THE INTERNATIONAL ARBITRATION ALLIANCE.¹

AN ADDRESS READ BEFORE THE PEACE CONGRESS AT
PARIS, 1900.

BY MONCURE D. CONWAY.

THE armaments of nations, built up by many centuries, have attained their fullest development in an age when the popular conscience is in revolt against bloodshed, and when the supreme material interest of the great majority of mankind is peace.

Although such armaments are kept up theoretically on the pretext of necessary provision for self-defence—this being the only admissible justification of war—the fact that in some nations least liable to invasion they exceed in strength what would be necessary for defence, and in others are supported to the utmost though necessarily inadequate against the only invaders conceivable, proves that the increase of military and naval establishments is largely due to interests other than those of defence. They are the refuge and only resource of millions of unskilled men; they are the support of many industries; they supply realms in which personal ambition may most easily find promotion, title, rank, privilege, at a time when the old aristocratic régime has lost authority and is losing prestige.

¹ In an address before the Free Religious Association in Boston, May, 1898, Dr. Conway proposed a new plan for international arbitration, and printed it in more detail in the *South Place Magazine*, London, November, 1898. A recently published letter of Mr. Herbert Spencer alluding to it having revived interest in the plan, Dr. Conway was requested to prepare a full statement of the project for the Peace Congress which assembled in Paris, September 30, 1900. Having been recalled to America before that date, his address was read. The present article is printed from an advance copy of the address, and is published together with the scheme, the adoption of which was moved in the Congress by Mr. Hodgson Pratt, President of the International Peace Association. The editorial position of *The Open Court* with regard to the questions here touched upon, is pretty well indicated in the articles published in Vol. XII., pp. 436 and 691, and in Vol. XIII., p. 218, where considerations are adduced that diverge in certain respects from Mr. Conway's remarks and from Mr. Pratt's propositions, though without invalidating the general high and laudable tenor of their position.—*Ed.*

Above all, the armaments alone maintain national rank. Were all the Powers unarmed, there would be an equality between nations small and large, rich and poor, which the foremost nations will not admit. Governments, whatever the sentiments of individuals administering them, are creatures of an established system by which for each its might is the measure of right, and its will if successfully enforced is the divine will. The pride disguised as patriotism, and the egoism disguised as religion, which lead populations to worship their flag apart from any association with justice and moral greatness, render every flag to some extent a center and source of international hostility,—the comb of a cock flaming its defiance to all surrounding dunghills. And even though powerful governments show an increasing disinclination for literal war with nations of anything like equal strength, they generally endeavor to secure their will over others by menacing displays of military and naval superiority. We live under a sort of international reign of terror.

Thus while the supreme material interest of the peoples in our increasingly industrial and commercial age is the continuance of literal peace, this is consistent with wide-spread interests in war-like establishments and almost universal acceptance of a standard of national greatness and honor based on physical force. So universal, indeed, that in most wars the masses of the people have been induced against their sentiments and interests to consent to the bloodshed by a fostered fiction that their national honor was at stake.

It is self-evident that a point of honor between nations cannot be settled by proof that one is superior to the other in the means of slaughter. It is equally obvious that a nation is not the rightful judge of its own honor. It is an elementary principle that no judge shall sit in his own case. Yet in the absence of any method by which a human standard of honor may be upheld above national self-assertion the standard of brute force remains; and in the absence of any impartial tribunal to check national egoism, each government is left to sit in its own case, without appeal.

These anomalies have been recognised by the wisest and best of mankind for generations, but all plans of remedy have failed.

The most important effort ever made to substitute arbitration for war was that of the recent Peace Congress at the Hague. While it was a salient evidence of the increasing sentiment of humanity, and was much that Peace should receive even a complimentary decoration from nations armed to the teeth, the evil system proved

itself compulsory; even the monarch who proposed disarmament cannot himself disarm; and War, having united in the homage to Peace, steps forth to drive his chariot through all her Hague defences and fill the world anew with slaughter.

The members of that Congress, as official representatives of Powers jealously armed against each other, entered with hands tied. For each his own nation's power was necessarily the supreme interest, the interests of Peace subordinate. Peace was compelled to pay for her decoration by conceding the legitimacy of War as a civilised method. Arbitration not being obligatory, we are practically left where we were before: arbitration will continue where self-interest dictates it, war where self-interest dictates that.

Hopes were built on the agreement that the effort of any nation to induce another to accept arbitration or to bring about peace should not be deemed by either party a hostile interference. This provision is shown to be delusive. Each government has its own complications to deal with, its own schemes awaiting opportunity, and there is a governmental instinct against setting any precedent of intermeddling which may some day return on itself with interest. And, alas, few of the foremost nations are in a moral attitude entitling them to much influence over others. As any unwelcome offer of "good offices" can be met with a *tu quoque*, and would be so met by a nation confident of victory, no such influence can be counted on. We are more likely to see a development of the old fashion of courteously exploiting a neighbor's difficulties to get some advantage, to be paid for in moral support.

It is abundantly proved that the vicious system cannot reform itself. Also, that whatever the benevolence of individuals deriving power from the system, that power will inevitably support the system, and the more virtuous the official the more potent will be his compulsory service to the evil. His virtues will gild his chain and ours. A corollary of this is, that for the promoters of peace to try and carry their cause by aid of existing governments is not a mere waste of force but an importation of weakness. For every government proposing peace is liable to suspicion of seeking prey in sheep's clothing. Whatever may be their several values for internal purposes, the governments, as far as the cause of international peace is concerned, necessarily enforce on each other just that kind of solidarity—the solidarity of mutually respected selfishness—which it is the task of civilisation to break up, in order that the elements of impartiality represented in the separateness of nations may be free to coöperate for a solidarity of justice.

Assuming then that the armaments and the option of slaughter can be changed only by evolutionary forces, these forces must not be left to natural selection, the strong devouring the weak. It is human selection that must be introduced to check this international cannibalism; and as all appeals to the moral sentiments, to religion, to humanity, have only resulted in making War careful to be always unctuously moral, pious, and humanitarian, gaining thereby new leases, it seems absolutely necessary that a new method should be tried.

The only method that has not been tried is that of bringing the moral sense and the justice of all mankind, represented by competent men in all nations but unconnected with their governments, to deal with every particular dispute that threatens peace,—deal with it as it arises,—and by a reasoned judgment pronounce the adjustment required by the honor of each nation concerned.

The proposal thus made is to concentrate all the higher human forces, and them alone, to overpower the brute and inorganic forces. Although it may appear Utopian to confront the pride and passion of empires with judgments that cannot be enforced, precisely there lies the only resource that has not been drawn upon. Could we enforce a decree of peace, it would be at once sanctioning force and enabling her opponents to continue their easy victories over reason and right. But how can any nation combat the unarmed, the purely spiritual force, which says: "Yes, you have the power, you can do as you will; our power is limited to proving that you are in the wrong: justice is against you, law is against you, reason is against you; here are the facts, proven and weighed by the wisest men, the greatest jurists, not of unfriendly nations but of all nations: it is the consensus of the competent: you have the power to defy it, you can enter on a career of murder, but not without branding your nation with guilt and dishonor."

This appeal to simple truth and justice might not restrain ambitious rulers and militarists, but it could hardly fail to reinforce the party of peace in any country where the people are being excited to war by declarations that national honor is at stake,—usually the most effectual pretext. The peacemakers would be given a powerful argument if enabled to place before the misled masses a judgment representing the wisdom and justice of all nations pointing out the real victory of honor, and proving that it cannot be won by manslaughter.

The plan may not, of course, succeed in all cases. There may be found obstructions that cannot be surmounted or tunnelled by

our engine of peace, especially in its primitive condition. We can but do our best. We can but set our ablest engineers to the work of preparing a highway for peace throughout all the world. If our plan should be the means of preventing even one war—only one—it would more than compensate all the labors given to its inauguration. But if it could prevent one war it may prevent another, and another; and we can hope that ultimately the people in all countries, having found the more excellent way, may come to regard their vast and costly armaments as exhausted and fruitless trees, and ask why they should longer cumber the ground.

CONSTITUTION.

It is proposed to form an International Alliance based on the following principles:

1. In no case whatever can a point of honor between nations be honorably settled, nor a question of justice be justly settled, by a trial of physical strength.
2. It is inadmissible for a nation to be the sole judge of its own honor, or of the justice of its own case, in any dispute with another nation.
3. The interests of all nations, both material and moral, being affected by every disturbance of peace between two of their number, Humanity itself is necessarily a party to every dispute that endangers peace, and should be represented in each such case by a tribunal competent to investigate the same, to discover the right and the wrong, and to affirm the adjustment required by justice and honor.

I. It shall be the duty of this Alliance to watch vigilantly all sources of difference or of irritation between nations, to study all facts and collect information, such as might be useful to a tribunal of arbitration should the issue become serious.

II. Members of Associations now existing for the promotion of peace, and of such as may be formed, shall be admitted as members of the Alliance and shall unitedly elect in their own country a Council of five.

III. Members of a Council need not belong to any other organisation. They shall be persons holding no office—administrative, political, military, diplomatic—under their own or any other government, such as might render them liable to act under governmental pressure.

IV. Members of Council shall receive no payment. When summoned together and while sitting in Council their personal expenses and pecuniary losses shall be reimbursed by their electors.

V. There shall be no president in any Council. Should a chairman be found desirable during any consultation, he shall be chosen by lot at the opening of each séance.

VI. The consultations of the Council shall be in secret, and its opinion unsigned, but every opinion shall set forth fully the facts, authentications, and arguments on which it is based.

VII. Members unable to attend their Council may send written opinions and arguments, but there shall be no voting by proxy.

VIII. Any Society of the Alliance that may believe peace imperilled should

at once communicate with the Societies in other countries, and if two Societies agree that the occasion requires action all the Councils shall assemble.

The Councils shall assemble on the demand of a Council in any nation immediately involved by the dispute requiring adjustment.

Any Council may assemble *proprio motu* to consider the necessity of action in a particular case, and may correspond with Councillors elsewhere, and an agreement of two Councils shall cause all to be summoned.

IX. The Council of any country that is a party to the menacing dispute, shall assemble at an early stage of the quarrel and collect all the facts relating to it, and state its views, and copies of such facts and statement shall be forwarded to each of the other Councils, to be used as documents in reaching their conclusions. But the action of Councils belonging to the disputing nations shall be limited to this.

X. If the tribunal constituted by the Hague conventions fails in any instance to bring about arbitration, or shall so delay it as to endanger peace, a General Council shall assemble to adjudicate the dispute. The General Council shall not decline this obligation even though one or both of the disputants should not be signatories to the Hague conventions.

XI. The Councils in their several countries shall in such case confide their respective conclusions and statements, each to two of its members: these shall meet with similar representatives from the other Councils (from nations not parties to the dispute) in some impartial place, and shall together constitute the General Council, or Tribunal of Arbitration.

XII. The General Council shall not meet as mere delegates, fettered by the letter of the conclusions of their Councils. They are to compare these several statements, to consider freely any modifications that may be suggested, and to weigh any new fact that may have come to light since the statements were prepared. Their digest of all the statements and opinions shall be embodied in a full and final statement and judgment which shall at once be published.

XIII. Whenever two Councils belonging respectively to the disputing countries, or three Councils of other countries, or three societies of the Alliance, shall agree that action is too urgent for the normal procedure, as many members of the various Councils as can gather in one place shall constitute the General Council and pass final judgment as such.

CHRISTIAN MISSIONS AND EUROPEAN POLITICS IN CHINA.

BY PROF. G. M. FIAMINGO.

THE reference which Lord Salisbury, in the speech which he pronounced at Exeter Hall, made to the involuntary responsibilities incurred by missionaries as indirect causes of the Chinese revolt against Western civilisation, still continues to afford ample food for comment and discussion in the European press.

It would be impossible even for the most zealous supporter of mission work to maintain that Lord Salisbury's accusation is wholly unfounded. For missionaries in the Far East a certain amount of *push* and of self-assertion is a necessary condition to success, and one which Catholic missionaries, above all, take good care not to neglect. Even at the Paris Exhibition may be seen the gorgeous and really interesting pavillion of the Catholic missions, on the Trocadero, for these up-to-date apostles ignore none of the secrets of a modern *mise-en-scène*.

But far more interesting and important than the showy pavillion at the Exhibition is the magnificent Palace of the Propaganda at Rome, rising majestic over the Piazza di Spagna, for it is in this sombre and imposing building that all the complicated machinery of Catholic missions throughout the world is worked by able and ever-watchful prelates.

It was Sixtus V., that giant among Popes, who first conceived the idea of a separate and independent organisation for the purpose of spreading the Catholic religion to the uttermost ends of the world. Indeed the *Propaganda Fide* may be compared to a sort of ecclesiastical Foreign Office, whose duty it is to maintain friendly relations not between the Holy See and foreign governments, but between the Church of Rome and the faithful scattered all over the *orbis terrarum*, the number of which faithful it endeavors to in-

crease by every means in its power, regardless of sacrifices both of lives and treasure.

Long before this powerful institution for the spreading of Catholicism was founded, however, Catholic missionaries had pitched their tents in the vast empire destined to become the scene of endless labor, suffering, and glory to themselves and their followers for many centuries.

And it is to Italy that the honor of having first violated the mystery of the Middle Kingdom is due. As early as 1288 Father John of Montecorvino, of the Minor Franciscans, founded a mission in North Chi-li, not far from Peking. But even in those times the missionaries fared no better than they do now, and persecutions were both frequent and violent. Under the dynasty of the Yüens, Christianity was practically stamped out, and it was not until 1582, when the Yüens were driven from the throne, that the celebrated Jesuit Father Picci succeeded in re-establishing a mission at Peking.

The famous emperor, K'ang-hi, allowed a wider scope of action to the Italian missions, which were thus enabled as early as 1688 to extend their jurisdiction into Mongolia, Manchuria, Schan-tung, and Corea. An era of rapid progress then began in all the provinces of the Celestial Empire. It was not before 1783 that the French commenced to work by means of the priests of the missions, more commonly known under the name of Lazarists, who soon began to compete successfully against the Italians, converting to their own advantage the pioneer work so successfully begun by the latter. Up to 1860, however, the Italians could still be considered as sole masters of the missions, as they far outnumbered any other nationality.

But when the present deplorable conflict between Church and State arose, the Vatican began to seek the support of foreign powers, with the result that the Italian missions in China underwent a veritable disaster. At a moment when funds became more urgent than ever, in view of the ever-increasing activity of the missionaries of other nationalities, the Vatican suddenly withdrew its support from the Italian missions, whose place was gradually taken by newcomers. Although the Holy See has often protested that the question of nationality has nothing whatever to do with mission work, still it is a well-known fact that the Vatican has done everything in its power to support French influence in the Far East. For it is France, the *fille aînée de l'Église*, that the Vatican has always recognised as holding a protectorate over all Catholic mis-

sions, of whatever nationality, in China, in the same manner as Austria-Hungary, by an equally ancient privilege, claims the right of protection over the missions in Egypt.

But while Austria-Hungary has never taken advantage of her rights, France, on the contrary, has systematically made use of her protectorate over Catholic missions for political purposes. Indeed it cannot be denied that France owes her present strong position on the shores of the Mediterranean and in Tunisia to her missionaries, and more especially to Cardinal Lavignerie.

As recently as the 22nd of May, 1888, the Sacred Congregation of the Propaganda Fide formally reasserted this privilege of France in the circular letter *Aspera rerum conditio*. "It is a well-known fact," says this document, "that for many centuries past the French Protectorate has been established over the East, and that it has been confirmed in the various treaties with other nations. No change whatever must be introduced in this matter, and wherever the protectorate of this nation is established it must be religiously respected by the missionaries, who, when in need of help, must turn to the French consuls or other agents of the same nation."

It cannot be denied that France has enjoyed the privilege of protectorate over missions in the East for a long time, when the conditions of Europe were very different from what they are at present, but this privilege conferred by the Holy See on the "eldest daughter of the Church" has never amounted to a positive right, for the simple reason that, contrary to the affirmation of the Propaganda Fide, it has never been recognised by international treaties or in any way sanctioned by diplomacy.

The French government and the Holy See interpret the Treaty of Paris of 1856 in their own way when they assert that this privilege, first granted as a reward to St. Louis and to his brave knights, was reconfirmed and sanctioned in homage to so ancient a tradition. Besides, the Treaty of Berlin of 1878 contains an article (art. 62), which stipulates that "the rights acquired by France are expressly reserved, and it is understood that no change be introduced in the *status quo* of the Holy Land." But here too while mention is made of the Holy Land there is no allusion to Syria or to China which might warrant the extension of French privileges to those regions. As a matter of fact, therefore, no European nation has ever consented to recognise the privilege conferred by the Vatican on France, and the Emperor William II. not long ago openly rebelled against the strange pretension that Ger-

man missionaries should divest themselves of their nationality to embrace the French. It will be remembered that the occupation of Kiao-chou was justified by the Emperor as an act of reprisals for the murder of two German Catholic missionaries in Shan-tung. William II. appreciates at its full value the enormous political influence wielded by the humble missionaries who start from the Propaganda Fide, and he has lost no time in declaring both to France and to the Vatican that the German missionary, of whatever denomination he may be, shall always travel under the protecting wing of the German eagle. With his quick diplomatic perception the Kaiser has immediately understood that the missionaries placed by the Vatican under French protectorate accomplish the same rôle which is fulfilled by those politico-religious ministers who have been christened in Europe "the Jesuits of England's colonial expansion," and therefore persists in turning a deaf ear to the protests of the Vatican, which would have France alone as the protecting genius of the missions in the East.

That the missionaries, to whatever nationality they belong, carry on a beneficial and highly important propaganda for their country, is now an undeniable and well-known fact, and this being the case, it is not surprising to find them under the accusation of being more or less directly concerned in political events.

It is interesting to learn what a Catholic prelate, Mgr. Luigi Piazzoli, Bishop of Hong-Kong, who was recently interviewed by the *Osservatore Catholico* during a short stay in Milan, had to say on the subject: "I cannot deny," began his Lordship, "that there is some truth in the accusation brought against the missionaries of having indirectly caused the present troubles in China. But theirs is an indirect, a very indirect, responsibility. There was a time in which the missionaries were held in the greatest consideration and esteem and were almost beloved by the Celestials. For instance, in one of the squares of Peking there stood a statue to Father Matthew Ricci with the inscription *Li-ma-to*, meaning Grandee of China. But in those times the missionaries were not hampered with the protection of European powers. For the important point of the question lies here: the missionaries ought not to be *protected* by anybody! They are and should always remain voluntary victims, men ready to sacrifice everything. By being protected they lose their prestige and gain nothing. Formerly they died the death of martyrs, now they are killed merely because they are Europeans. The protection of the powers merely serves the latter as a pretext to acquire a firm footing in the Celestial Empire every time that

some missionary is killed or ill-used. The consequence is that the Chinese have come to hate the missionaries; they no longer consider them in the light of ministers of a religion, but as spies charged with preparing the ground for the invasion of the *foreign devils*. Now you will understand why I said that the missionaries are *indirectly* the cause of the present revolt against Europe.

"But the real direct cause of the trouble is that the Chinese will never forgive the Europeans for having established themselves in their ports and for gradually acquiring an undeniable influence almost amounting to dominion over their country. And they can never forget or forgive the profound difference which separates the manners and customs of the two races. It was madness to hope that we could win them over to our civilisation by means of railways and cannons. Besides, it must be owned that the specimens of European civilisation down there are not always as edifying from a moral point of view as might be desired. I repeat that the only chance of gradually winning China for Western ideas lies in the patient, slow, peaceful work of the missionaries, of the missionaries left wholly to themselves. Everything has been spoiled by this political interference. You see that the Chinese are now murdering their own countrymen whom they suspect of having been hopelessly corrupted by the missionaries, of being Chinese no longer. The Catholic edifice raised up stone upon stone with such infinite patience by thousands of martyrs during a long vista of centuries is now threatened with utter destruction. When will it be possible to set foot again in China? And will it not be necessary to begin the whole work over again from the very beginning? Oh! it is sad, believe me, it is a very sad prospect."

Mgr. Piazzoli did not deny, however, that many of the so-called converts to Christianity, especially in Canton, a city famous for its thieves and robbers, are not *bona fide* converts at all, but feign conversion merely in order to obtain better employment from Europeans and to carry on their thieving under more auspicious circumstances. Those scoundrels naturally throw discredit on the missionaries and contribute to increase the suspicion in which they are already held by the great majority of the Chinese.

All things considered, therefore, it cannot be doubted that those missionaries, the protectorate over whom is disputed by France and the other powers, all anxious to exploit them for their own political ends, have no small share in the tremendous load of responsibility which has brought about the present revolt of China against Western civilisation.

CHINESE EDUCATION.¹

Communicated.

THE philosophers of China form a succession of thinkers reaching from the invention of writing to our own day. Through five thousand years these men have been the guides of the nation, and their systems are in a measure of national attainment made from time to time in the explanation of the universe. A philosopher is a man who gathers disciples, instructs them in the secrets of nature and makes original investigations in the realm of thought. His results he forms into a system and commits to the care of his followers, who shape their mode of thinking in accordance with the ideas of their master.

The first philosophers of China occupied themselves with agriculture, the art of writing, the management of lakes and rivers, astronomy, and moral and political philosophy. We have the results in the earlier classics. In the Chow dynasty there was a remarkable stirring of the native mind, first in the eleventh century before Christ and then in the sixth century. Chowkung and Confucius led the van. Such was their influence that their position has been ever since undisputed.

No one probably but Professor Legge ever said Confucius was not a great man, and Professor Legge in his second edition of the Four Books recanted.

In the first edition of the Four Books we read at page 113 of the Prolegomena:

"After long study of his character and opinions I am unable to regard him as a great man."

In the Oxford edition of 1893, thirty-two years later, the words are:

"I hope I have not done him injustice; the more I have studied his character and opinions the more highly I have come to regard him. He was a very great man."

¹ From *The Shanghai Mercury* of Wednesday, January 17, 1900.

His rationality, his firm adherence to a moral standard in politics and philosophy, his sympathetic maintenance of the teaching



CHOW-KUNG.

(Died B. C. 1105.) The great statesman of the Chow dynasty. Idealised by
 應舉 Confucius. (After Ōkyo, Japanese artist of the eighteenth century.)

of the great men of the past, his success in giving to his countrymen a set of text-books which they have studied ever since and

are still studying, show that he was a great man. Philosophy is incomplete without history, and the proper study of mankind is man. This Confucius knew, and he made it a principle. The study of physical nature he left to others.



CHWANG-TZE.

(Cir. B. C. 350.) Most prominent of Taoist philosophers. (After Ôkyo, Japanese artist of the eighteenth century.)

It was the same with Lau-tsz, Chwang-tsz, and Mencius. But there is a great contrast between the teaching of the Taoists and that of the Confucianists. Quiet contemplation is a very different thing from the teaching which makes it the duty of a man to serve

his country. The Tauists resemble the Quakers, who cannot serve the State in any public office because their principles forbid them to take an oath. The Confucianists resemble the Puritans, who



訥言曰
古坑室奇蹟圖

MENCIUS.

(B. C. 372-289.) Greatest leader of Confucianism. (After Totsugen, Japanese artist of the eighteenth century.)

will fight for their doctrines if need be. Age after age there have been Confucianist critics of public affairs who would risk death

rather than not speak their mind on the faults of sovereigns. As in the case of Charles the First, death is in China the punishment awarded to unfaithful princes. This punishment is inflicted, not by law, but by rebellions which have often ended either in the beheading of sovereigns as a sacrifice to popular indignation, or in suicide as a preferable mode of resigning life when death was inevitable.

The fact is patent to every one that the Chow dynasty philosophers were the founders of national education. This is true of the orthodox school. They made government the occupation of their life. Their ideas of the scholar's duty were practical, and the good of the people was their aim. They undertook to govern the State and to educate the people.

The services of Confucius deserved recognition, and we may regard Chinese education as being chiefly his work. For five hundred years, down to the year 1900, Chinese education has been conservative. The Four Books have been the text-books, and these books rest upon the Five Classics. The idea of the distribution of office to scholars as the result of examination is of native origin. It takes the place of university education in Europe. Every Chinese prefect and magistrate is also an examiner. He promotes education in his own district by holding examinations at certain times. The literary chancellor on his annual rounds in each province confers the degree of *Siu-ts'ai* on successful candidates after an examination conducted by himself.

In addition to the literary chancellor there are two Masters of Arts, Examiners sent down from Peking every third year. These confer the rank of Master. The examination is held in the capital of each province.

All *Siu-ts'ai* are eligible and may by the success of their essays become *Kü-jen*. Afterwards they may attain the rank of Doctor of Literature or *Tsin-shih* at the final examination in Peking. The crown is the fountain of honor. The sovereign confers degrees, and examiners are in every case deputed by the sovereign to discharge his duties for him.

This system must inevitably change, and admit science, history, and geography to the curriculum of ordinary schools. The influence of foreign thought is tending to force Chinese ideas on education to become modified. The world changes and the Four Books begin to be antiquated. But they will not be abandoned because the *Ta hio* makes sincerity the basis of virtue, and teaches that kindness and justice promote happiness.

"The sincerity of the ruler diffuses contented feelings among the people he governs. Instruction proceeds step by step and every point is to be made plain to the learner. The communication of knowledge is preceded by investigation. Nature must be investigated."

In saying this the *Ta hio* rises in fact to the sphere of philosophy, and opens the way for all the sciences. This one sentence in this ancient book justifies the foreign education list in a claim to be allowed to point out to the Chinese the improvements they need to make in the programme of studies.

The Chinese have taught Europe the use of the mariner's compass, the art of printing, the cultivation of tea, and the manufacture of silk. Now Europe may impart to China an improved curriculum in education and give them knowledge which will prove of inestimable value. Their education may be amalgamated with that of the West. They need not clash with each other, because ethical precepts are of universal validity. Moral principles are never out of harmony with science and philosophy. The form that this new education should take is that of advanced science, history, politics, and religion. China is an old nation with great historical experience, and the education given should be high in proportion, when the learners are advanced in the special studies of their own country. But for the untaught multitude the education they receive should be like that given to children, line upon line and precept upon precept, here a little and there a little.

MISCELLANEOUS.

THE CONGRESS OF THE HISTORY OF RELIGIONS AND THE CONGRESS OF BOURGES.

An International Congress of the History of Religions was held in Paris from the 3rd to the 8th of September of this year, under the presidency of the Hon. M. Albert Réville, of the Collège de France. This congress in no wise resembled the Congresses and the Parliament of Religions held in Chicago in 1893. It had even, owing to the political and religious situation in France, imposed upon itself the express limitation that the history of religions alone should be considered, and that no discussion of matters of faith or confessional interests should be permitted. This condition was faithfully observed; but we had nevertheless an echo from the great Parliament at Chicago in the shape of an animated and enthusiastic address from its president, the Hon. Charles Carroll Bonney, and of a sympathetic communication from Dr. Paul Carus, as well as a few words of reminiscence by M. Bonet-Maury. Would it have been possible, indeed, as M. Albert Réville himself observed, to have omitted from a congress of the history of religions all mention of so historical an event as the great ecumenical council of Chicago?

Numerous communications were made, both in the general assemblies and in the various sections. In the general sessions, for example, M. Goldziher spoke of the relations between Islamism and Parseeism; M. le Comte Goblet d'Alviella spoke of the historical relations obtaining between religion and ethics; M. Séuart, of Buddhism and the Yoga philosophy; MM. Jean Réville and Marillier, of the present state of instruction in the history of religions in Europe and in America; M. Marillier again,—in this instance taking the place of M. Nutt,—of the science of religions and folk-lore; and M. de Gubernatis, of the future of the science of religions.

This Congress was, so to speak, a congress of erudition exclusively. But it accomplished all that could be hoped of it, and furnished convincing proof that the original enterprise had not been entirely abandoned.

* * *

Almost simultaneously with the Congress of the History of Religions, was held in Bourges a Congress of Catholic Clergymen, under the authorisation of the archbishop of that city, and with the benediction of the Pope. The opinions expressed regarding this Congress diverge greatly, and I have nothing to say of the proceedings of the convention. It is the fact of the reunion alone that is interesting to us. A portion of the French episcopacy, perhaps the majority of that body, seemed to have been hostilely disposed toward the undertaking, which was inaugurated by

the Abbé Lemire, deputy from the department of Nord. The idea of convening in free and open assembly the rank and file of the Catholic clergy seemed a dangerous one, and likely to lead to the emancipation of the priests from the necessary and natural tutelage of their bishops. The clergymen who attended the congress, seven or eight hundred in number, disclaimed any such design, however, and discussed in their meetings only affairs which touched their particular mission, and did not wish to be understood as desirous of ventilating questions of theological instruction or ecclesiastical discipline.

To outsiders the cardinal point of interest involved is whether this first Congress is to have a successor, or, in other words, whether a periodical congress of the Catholic clergy will be permitted in the future and become an established institution. If it is, then a new force and a new organ in church matters will have been created. But every organisation of this kind expresses itself in definite functions and is bound to grow and expand; and while it is impossible to foresee exactly what its ultimate shape will be, it may be safely predicted that there will in such an event be many significant changes in the church affairs of France.

PARIS, September.

LUCIEN ARRÉAT.

FRENCH BOOKS ON PHILOSOPHY AND SCIENCE.

The French publishing house of Félix Alcan announces a series of expository works on the systems of the *Great Philosophers*. It will constitute in its totality a voluminous history of philosophy, with emphasis placed upon dominating ideas and theories conceived as centers of intellectual and spiritual radiation. The editor of the series is Dr. Clodius Piat, Professor in the École des Carmes. M. Piat is an abbé, and this fact will doubtless lend color both to the character of the series and to the selections made for treatment. As for his own choice, there is nothing of this apparent, he being the author of the initial volume, on *Socrates*, a philosopher whose doctrines he has expounded in a simple and intelligent manner. (Pages, 270. Price, 5 francs.) The second volume of the series has also appeared and is by Théodore Ruysen, sometime Fellow in the École Normale and Professor of Philosophy in the Lyceum of Limoges. M. Ruysen's book is the work of a scholar; and we have been unable on hasty examination to discern anything approaching to a theological bias in his treatment of the great German philosopher *Kant*. (Pages, 391. Price, 5 francs.) Two other volumes are announced for immediate publication, one on *Avicenna* by Baron Carra de Vaux, Professor of Arabic in the Catholic Institute of Paris, and another on *Malebranche* by M. Henri Joly, editor of the series of *Biographies of Saints* which has been noticed in *The Open Court*. The remaining thinkers to whom volumes are to be devoted in this series are Saint Anselm, Saint Augustine, Descartes, Saint Thomas Aquinas, Saint Bonaventura, Maine de Biran, Pascal, Spinoza, and Duns Scotus. It is interesting to note the increased interest which is being taken in educated Catholic circles in the study of the history of philosophy, and it is to be hoped that the above-mentioned books will find numerous readers among their followers.

* * *

The same publishing house issues another *Historical Collection of the Great Philosophers* which is of a different stamp. It contains the excellent translations of Aristotle and Plato, by the late M. Barthélemy Saint-Hilaire and Victor Cousin; critical studies of Socrates and Plato, by M. Alfred Fouillée and M. Paul Janet; and studies in Greek science, by M. Paul Tannery. The latest volume to appear

in this series is one by M. G. Milhaud, Professor of Philosophy in the University of Montpellier, entitled *Les philosophes-géomètres de la Grèce*. M. Milhaud, whose studies in logic and the history of science have gained for him a favorable reputation, considers here the relations between Greek philosophy and mathematics, from Thales to Plato, and defines the general bent which mathematical studies impress upon philosophical thought. The work is divided into two parts, the first of which is devoted to the predecessors of Plato, and the second, which takes up the bulk of the work, to Plato himself. For students of the philosophy of science the work will be attractive reading.

* * *

In his *Formes littéraires de la pensée Grecque*, M. H. Ouvré, Professor of Literature in the University of Bordeaux, has attempted the herculean task of explaining the character and import of one of the most significant periods of literary history by an analysis of its psychological, æsthetical, and social causes. He has written, not a history of Greek literature, but a philosophic treatise showing both the real and the logical concatenation of the various forms in which the literary thought of the Greeks has expressed itself. He discusses the subject under ten headings beginning with an investigation of the origins of Greek thought, and pursuing his researches through narrative and lyric poetry, prose, philosophy, the drama, history, written discourse, etc. He finds in literature the crowning work of man and believes that the achievement *par excellence*, even of our own epoch, is not science and science alone, but by the side of science and perhaps above science, poetry. His book is an erudite work, and persons who enjoy this species of investigation will find it of interest. (Paris: F. Alcan. Pages, xvi. Price, 10 francs.)

* * *

Something similar in aim is the work of M. Georges Renard, entitled *La méthode scientifique de l'histoire littéraire*, the fruit of twenty-five years of study and instruction in the University of Lausanne. The author seeks here to determine precisely what the history of literature means, and also what portion of it can be subjected to scientific method. He believes it possible to rise from particular to general truths in this domain by a consideration of the myriad relations which connect literature with its environment, as well as to formulate the law which governs variations of taste. His illustrations are drawn mainly from the evolution of French literature, but afford suggestive material for the study of literary history generally. (Paris: F. Alcan. Pages, 500. Price, 10 francs.)

THE INGERSOLL LECTURESHIP ON IMMORTALITY.

The Ingersoll Lectureship on the Immortality of Man was established at Harvard University in 1893 by a bequest of the late Caroline Haskell Ingersoll. Every year, some person, clergyman or layman, irrespective of denomination or profession, is appointed to give the expression of his personal views regarding this deepest spiritual craving of humanity. Prof. William James, the brilliant Harvard psychologist, was made lecturer for 1898, and his lecture now lies before us as a book bearing the title *Human Immortality: Two Supposed Objections to the Doctrine*. (Boston and New York: Houghton, Mifflin & Co. Pages, 70. Price, cloth, \$1.00.)

Professor James has treated the problem in his usual apt and delightful man-

ner; he is always graphic and trenchant; and the delicate tinge of emotional mysticism which colors his philosophy lends to his expositions a charm which few can resist. The two objections Professor James considers are: (1) The inference from physiology that since thought is a function of the brain, when the brain perishes so also must the thought perish; and (2) The inference from biology and history that since countless numbers of indifferent individuals have perished in times gone by, Heaven must be not only disagreeably overcrowded but insufferably tiresome. Professor James disposes of the first objection by analysing the concept of function and showing that the physiological doctrine may be interpreted as referring to *transmissive* function, and not necessarily to *productive* function. Thought is not a function of the brain as steam is of the tea-kettle, but as the color-fan of the spectrum is of the refracting prism. Our brains are the prisms, as it were, through which the thought of eternity is transmitted; each has different degrees of transmissibility, each different degrees of effectiveness; when one stops "that special stream of consciousness which it subserved vanishes entirely from this natural world. But the sphere of being that supplied the consciousness will still be intact; and in that more real world with which, even whilst here, it was continuous, the consciousness may, in ways unknown to us, continue still."

It is difficult to see how this prismatic and transcendental eschatology can be reconciled in any way with the doctrine of individual immortality. The only logical conclusion from it would seem to be this, that immortality is an attribute of the great universal ocean of consciousness only, and not of the transient and perishable individual streams that flow from it; in a word, that the individual is immortal only in so far as he is not an individual,—a conclusion which, if not accepted itself as an ultimate solution, simply leaves the question where it was originally taken up. The transmission-theory of Professor James, furthermore, "puts itself in touch" with the phenomena now being investigated by the Psychical Research Society, and this in itself is no mean recommendation to the author.

As to the second objection, the crowdedness of Heaven, Professor James advances the theory of the infinite compassion and love of the Supreme Spirit, or God, and affirms the gospel of the paramount significance of the individual life. "God," he says, "has so inexhaustible a capacity for love that his call and need is for a literally endless accumulation of created lives. He can never faint or grow weary, as we should, under the increasing supply. His scale is infinite in all things. His sympathy can never know satiety or glut." And again: "The tiresomeness of an over-peopled Heaven is a purely subjective and illusory notion, a sign of human incapacity, a remnant of the old narrow-hearted aristocratic creed." The individuals of the past, the present, and the future who appear so obnoxious to us in their mediocrity and sameness and as unfit for perpetuation, throb with a life and significance quite equal to our own and beyond our sphere to judge. "Was your taste consulted in the peopling of this globe? How, then, should it be consulted as to the peopling of the vast City of God? Let us put our hand over our mouth, like Job, and be thankful that in our personal littleness we ourselves are here at all. The Deity that suffers us, we may be sure, can suffer many another queer and wondrous and only half-delightful thing."

Such is the character of Professor James's refutations of the current objections to the doctrine of immortality. They are broad and elastic, and admit of varied interpretation; and these features—not their definiteness—will recommend them to all persons who seek support for the immortality that they individually have most at heart.

BOOK NOTICES.

Mr. John M. Colaw, associate editor of the *American Mathematical Monthly*, and Mr. J. K. Ellwood, principal of the Colfax Public School, of Pittsburg, Pa., have also been essaying something recently in the way of elementary arithmetics on the inductive plan, and we are just now in receipt of two volumes from their pen, (1) *A Primary Book of School Arithmetic* and (2) *An Advanced Book of School Arithmetic*, published by the B. F. Johnson Publishing Co., of Richmond, Va. The appearance of the books, both as to illustrations and as to didactic mechanism, resembles Mr. Speer's *Arithmetics*, Mr. Campbell's *Observational Geometry*, and Professor Hanus's *Geometry in the Grammar School*, all of which were reviewed in *The Open Court* for October. But they are in some respects more conservative than Mr. Speer, for example, and cling rather to the old style and principles of exposition. As to the *Advanced Book*, there is little to be said concerning it, save that the equation is introduced, the chapters on commercial arithmetic are modernised, the principles of elementary mensuration experimentally deduced, and a brief introduction to algebra added as an appendix. The *Primary Book* makes considerable use of experimental methods, beginning with considerations of form, counting by natural number-pictures, fagots, money, etc., measuring by rulers, tape-lines, liquid measures, etc. In fact, all the most important of the devices of modern inductive pedagogy have been exploited for this little volume, which, if anything, is, we think, superior in its conception to the so-called *Advanced Book*.

More animated appreciations of the great personages of English Literature and their environment than Mr. Elbert Hubbard's *Little Journeys to the Homes of English Authors* could scarcely be imagined. They are instinct with wit and with trenchant, even unbridled, criticism of life, and never fail to hold the attention, if not to engage the assent, of the reader. Take for instance these opening paragraphs from *John Milton*: "The father of John Milton might have known Shakespeare—might have dined with him at the 'Mermaid,' played skittles with him on Hampstead Heath, fished with him from the same boat in the river at Richmond; and John Milton, the lawyer, might have discreetly schemed for passes to the 'Globe' and gone with his boy John, Junior, to see 'As You Like It' played, with the Master himself in the rôle of old Adam. Bread Street was just off Cheapside, where the Mermaid Tavern stood, and where Beaumont, Fletcher, Ben Jonson and other roysterers often lingered and made the midnight echo with their mirth. In all probability, John Milton, Senior, father of John Milton, Junior, knew Shakespeare well. But the Miltons owned their home, were rich, influential, eminently respectable, attended Saint Giles Church, and really didn't care to cultivate the society of play-actors who kept bad hours, slept in the theatre, and had meal-tickets at half a dozen taverns." In the same strain are the remaining twenty-one pages—veritable miniatures of literary portraiture, and far more lasting in impression than the pictures given us in the great biographical tomes. In addition is to be noted the decidedly artistic effect of the typographical setting of the book, its antique black-face type, its title-page and initials, especially designed for it. A fine heliogravure portrait of Milton, on Japan vellum, accompanies the booklet, which is one of a monthly series, now issued by the Roycrofters, of East Aurora, N. Y., an esoteric, bean-eschewing, Pythagorean association of book-makers, celebrated for their skill and deserving of the world's encouragement. (Single numbers, 25 cents.)

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मोहम्मदुलरमदुः
F. Maschmüller.

(1823-1900.)

Frontispiece to The Open Court.

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ON GREEK RELIGION AND MYTHOLOGY.

BY THE EDITOR.

MONSTERS.

MOST of the monsters with which the Greek heroes contend are the same as in the folklore of all nations,—dragons. In ad-



GORGONEION.

Ancient face of the Gorgon Medusa.

dition, we have many-headed snakes, wild boars, the Minotaur or man-bull, the Chimera or goat-fiend (reminding us of the Assyrian

goat-demons), and above all the Gorgon Medusa, whose head is used as an amulet to drive away evil spirits according to the logic that devils must be driven out by Beelzebub, the chief of devils. The Assyrians placed statues of the disease-spreading South Wind at their south entrances, because they believed that if the South Wind devil saw his own picture he would be frightened away at the sight of its ugliness.

Homer speaks of Medusa's head as a frightful monster in the Under World (λ 634 and Λ 36). Other authors¹ mention its evil eye



MEDUSA RONDANINI.

A later and more beautiful representation. (Glyptothek, Munich.)

and gnashing of teeth. It is stated that no one could look at its face without being horror-stricken. Its mere aspect was blood-curdling and petrified the beholder with fear.

Gorgo,² the daughter of the two sea-monsters, Phorkys and Keto, lived on the island Sarpedon in the Western ocean, near the realm of the dead and not far from the beautiful garden of the immortals. She expected to become a mother by Poseidon, when she

¹ Hes. Scut., 235; see also Apollodorus II., 4, 27.

² Γοργώ or Γοργών, also Γοργέ and Γοργόνη.

was killed, according to the Athenian version, by Athena (hence called the Gorgon-slayer, γοργοφόρος), and, according to the Argivian



PEGASOS LED TO WATER.¹

Relief in the Palace Spada. (E. Braun, *Antike Basreliefs*, pl. I. *B. D.*, p. 300.)

version, by Perseus, the conqueror.² From the wound Pegasus, the winged horse, and Chrysaor, the golden man, were born. On

¹ Pegasus originated from the blood of the Medusa (Gorgo) and served several heroes of the solar type as a steed. He opened with a stroke of his hoof a spring on Mount Helicon called Hippocrena or Horse-spring (Paus., 9. 31. 3), which was afterwards regarded as the well of poetic inspiration. Pegasus, as the symbol of poetry, is a modern idea, not found in the classics.

² Περσέης, literally the "the destroyer," viz., of the monster, from πέρθειν.

some monuments the soul is represented escaping in the shape of a diminutive human figure.

It will be noticed that the oldest representations of the Medusa are both frightful and ugly, but with the advance of Greek art the



THE DELIVERANCE OF ANDROMEDA BY PERSEUS.

Archaic representation. Pegasus springs from the blood of the Medusa.

(After Benndorf, *Metopen von Selinunt*, pl. I.)

terrible is transfigured by beauty and changed into a fascinating form of awe-inspiring grandeur.

MINOR DEITIES.

There are innumerable minor deities that deserve mention: Pan, the god of the shepherds; Seilenos and Satyrs, the servants of Dionysos; river gods, Nymphs and Naiads, or water spirits; Dryads or oak-tree spirits; Oreads or mountain spirits; Iris, the rainbow,



CHIMÆRA OF AREZZO.
The monster slain by Bellerophon. (Now at Florence.)



BELLEROPHON SLAYING THE CHIMÆRA.
(A terra-cotta statue of Melos, now in the British Museum.)

who serves as a messenger of the gods; Ganymede, the Phrygian youth whom Zeus selected for his cup-bearer; Hymen, the god of marriage; Eos, the goddess of the dawn; the winds of the four quarters; Eris, the goddess of quarrel; the Harpies or death angels who snatch away children from their mothers; the Sirens¹ or Greek Loreleis who tempt the seafarer to approach the cliff on which they are seated; Momos, the god of comedies; Komos, the god of jollity; Asklepios, the god of medicine and healing; Hygeia, the goddess of health; Tyche or Fortune, the goddess of good luck; Nike, the goddess of victory; Nemesis, the goddess of vengeance, retribution, and punishment; Kairos, a personification of oppor-



IRIS, THE MESSENGER OF THE GODS.



HYMEN.

tunity; Thanatos and Hypnos, death and sleep; Morpheus and Oneiros, slumber and dreams; the Centaurs, who were half-horse and half-man; and Castor and Pollux, the twins, called the Dioscuri.²

The figure of Nike has become the artistic prototype of the Christian angels. The idea of a divine messenger or *ἄγγελος* was

¹ The Sirens were originally the souls of the dead, as will appear further on.

² The Dioscuri were the sons of Leda and Zeus. The story goes that Zeus approached Leda as a swan and that she bore the twin gods in an egg. One of them, Castor, was mortal; the other, Pollux, immortal. When the former died, the latter did not want to live without his twin-brother. So he requested their father to allow him to die for his brother and to let them share alternately in the boon of immortality. They represent morning and evening stars, being the same planet and making their appearance alternately.

common to all the ancient nations and the appellation *bonus angelus* occurs in pagan inscriptions. The best protecting angel of emperors and kings was Nike, the goddess of Victory, and we find her frequently represented by their sides and on the hands.

The Hebrew word for angel מַלְאָךְ (*mal'ach*) also means "messenger" and is used in its original sense in the old Testament



GANYMEDE, THE PHRYGIAN BOY.

Carried up to Olympus by the eagle of Zeus.
(Marble statue by Leochares, Vatican.)

to denote men sent out on errands and ambassadors of kings. *Malach Jahveh* (מַלְאָךְ יְהוָה), i. e., messenger of JHVH means angel, as the word is now used.

All these divinities found more or less representation in art according to the needs of practical life.

ASKLEPIOS AND HIS APOSTLE APOLLONIUS OF TYANA.

Asklepios¹ was not a god in the days of Homer but only a skilful physician, the disciple of Chiron the wise Centaur. Being a



THE NIKE OF PAIONIOS. (After Treu's Restoration.)²

healer, however, he grew in importance and a number of contradictory legends sprang up concerning him, one told by the author

¹ Better known in English under his Latinised name *Æsculapius*.

² See Treu, *Olympia*, p. 182 ff., cf. Roscher, 39, p. 341.



NIKE.

Vase-picture in red. (After *Élite céram.* I, 91.)

ANGELS AT THE BED OF A DYING MAN.¹

Relief on an Etruscan Cinerary of Volterra. (*Arch. Ztg.*, 1846, pl. 47.)

¹ The angel of death stands at the head of the bed, sword in hand, the *bonus angelus* grasps the hand of one of the survivors, either comforting him or pledging him to remain faithful to the memory of the deceased. It was customary in Rome for the oldest son and principal heir to inhale the last breath of the dying person and so to inspire, as it were, his soul, as Virgil says (*Aen.* IV. 684) *extremum halitum ore legere*.

of the Homeric hymn XIV, another by Pindar, and a third one by Pausanias.¹ One thing is clear, however, that many Asklepiian priests were skilled physicians, and it would seem even that several of their temples were used as hospitals and sanitariums.

The Asklepiian priests, however, though there is reason to credit them with considerable knowledge of medical skill, were at the same time healers of the soul. They demanded continence, propriety, and faith in the saving grace of their tutelary god; and



KAIROS.

Personifying the moment of luck and success.²

(*Arch. Ztg.*, 1875, pl. 1. *B. D.*, II., 772.)

an inscription over the entrance of the temple of Asklepios in Epidauros reads: "None but the pure shall enter here."

An inscription discovered on the southern slope of the Acrop-

¹ Pausanias tells us the Epidaurian version, stating that Koronis, the daughter of King Phlegias, visiting Epidauros on the northeastern coast of Argolis, bore a child to Apollo, and fearing her father's wrath, exposed it on the mountain slope where it was found by the goatherd Ares-thanas and educated by Chiron. Ares-thanas at once knew the divinity of the baby, whom he called Asklepios, because when he lifted it up a light streamed from it as bright as a flash of lightning.

² Kairos walks on winged wheels and holds a pair of balances in one hand and a razor in the other, for, says the Greek proverb, the decision lies on "the edge of a razor" (*ἐν τῇ ἔνδοξοι ἀκμῇ*, cf. Homer, *K.*, 173). The relief shows a young man "taking fortune by the forelock." An old man standing behind Kairos extends his left arm, but too late; he has missed his chance; and repentance (*μετάνοια*) turns her head away weeping.

ASKLEPIOS, OR ÆSCULAPIUS.¹

(Now in Florence.)

¹ Judging from a coin of Pergamon (published in Baumeister's *Denkmäler*, p. 138), archaeologists believe that this statue represents the type of the statue made by Phyromachos for the Æsculapius temple of Pergamon. Cf. *B. D.*, 139.

olis at Athens records a prayer of Diophantos addressed to Asklepios, which reads as follows:¹

"Save me, and heal my grievous gout, O blessed and most mighty presence, I adjure thee by thy father, to whom I loudly pray. No one of mortals can give a surcease from such pangs. Thou alone, divinely blessed one, hast the power, for the supreme gods bestowed on thee, all-pitying one, a rich gift for mortals. Thou art their appointed deliverer from pain."

Asklepios is not addressed as a god, though he is invoked as a divine presence, and his common designation is Son of God (*filius dei*) and saviour (*σωτήρ*). A legend reports that once when Asklepios had resuscitated a man and prevented his descent into the realm of death, Zeus slew him with his thunderbolt at the request of Hades, the grim god of the Under World.

The greatest representative of Asklepios, however, Apollonius of Tyana, was a man who for some time in the history of our religious evolution appeared as a powerful rival of Jesus of Nazareth, aspiring to the honor of being worshipped as the Saviour of mankind.

It is perhaps not an accident that Tyana is a town of Cappadocia, not far from Tarsus, the birth-place of the Apostle St. Paul. Asia Minor was the region in which the religious fermentation that permeated the classical world from the days of Alexander the Great was strongest; and we have reason to believe that Apollonius was as pure-minded and earnest as his countryman Paul. Philostratos, a courtier of the literary circle of the Empress Julia Domna, compiled the life of this pagan saint, his main sources being the account of Maximus of Ægæ, for several years a fellow-philosopher of the Tyanian while both were pursuing the ascetic life of the Pythagorean brotherhood, and the wondrous tales of Daneis of Nineveh concerning the travels and adventures of Apollonius. The similarity of many of these stories to the miracles of Jesus excited in the early days of Christianity the jealousy of the Christian monks, as a result of which all the works of this pagan saint were destroyed, and we know his personality only from the distorted reflexion of it in the book of Philostratos, from the caricatures of Lucian and Apuleius, and finally from the incidental remarks of ancient authors, and the strictures of the Church Fathers.

Men of sober judgment, among them Dio Cassius the historian, believed in some at least of the miracles of Apollonius, and the Christians, among them Origen,² do not as a rule deny them.

¹ See Prof. Augustus C. Merriam's interesting article "Æsculapia as Revealed by Inscriptions" in the May number of Gaillard's *Medical Journal* (Vol. XI., No. 5).

² *Contra Celsum*, VI., 41.

Eusebius of Cæsarea takes Hierocles to task for giving preference to Apollonius over Jesus, in respect of the former's having lived a more exemplary life as well as having performed more numerous and better attested miracles. The same author quotes approvingly a sentence from Apollonius embodying his confession of faith. Eusebius says :

"Even the well-known Apollonius of Tyana, whose name is upon all men's lips for praise, is said to write much in the same strain in his work on sacrifice about the first and great God.

"There is one Highest God above and apart from the lower gods. Beyond the reach of the contaminating world of sense as he is, nothing apprehensible by any organ of sense, neither burnt offerings nor bloodless sacrifices, can reach him, not even unuttered prayers. He is the substance of things seen, and in him, plants, animals, men, and the elements of which the world is made, have life and exist. He is the noblest of existences, and men must duly worship him with the only faculty in them to which no material organ is attached, their speculative reason."

TARTAROS.

The realm of the dead was supposed to be underground. It was called Hades (the invisible) or Tartaros ; but both names, especially the former one, are also used to denote the God of the Under World himself. The dead live there as mere shades or bloodless specters, watched by the terrible Kerberos, a dog with three heads.

The idea that the living could commune with the dead was quite prevalent in Greece and led to necromancy and psychomancy, a branch of sorcery which had for its object the conjuring of the ghosts of the deceased for the purpose of making them proclaim oracles or prophecies.

The souls of the dead were conceived sometimes as winged heads, sometimes as fleeting shadows or images of the personalities of the deceased, both conceptions being of Egyptian origin.¹ The former can be traced to the notion of the *Ba*, the soul as consciousness pictured as a hawk with a human head, the latter to the *Ka*, i. e., the spirit of a man in a dream-like form of body at the time of his death. The so called tomb-sirens, found in great numbers in Greek cemeteries, were originally intended as representatives of the souls of deceased persons.

The god Hades is also called Pluto, and being the owner of all the uncounted underground treasures, is at the same time the god of wealth. The queen of the dead is Persephone, whose ab-

¹ Birds with human heads also figure in Assyrian mythology.

duction by Pluto is a favorite subject of decoration on Greek sarcophagi.

Access to the Land of the Shades was deemed possible in the



FUNERAL SIREN.¹

Found in Athens. (After a photograph, *B. D.*, p. 1644.)

west of Europe near the pillars of Heracles, the present Gibraltar. Odysseus visited the place and after him Æneas. Psyche descended

¹ This form of the sirens preserves most closely the Egyptian type of the *ba*, the hawk with a human head representing the soul of a deceased person. Their original significance, it appears, was soon lost and the sirens were believed to be supernatural beings of transcendent beauty lamenting the dead. Diodorus Siculus informs us that at Hephaestion's incineration wooden sirens contained the singers who sang the dirges (xvii, 115). Later on the sirens were represented standing as winged virgins with birds' feet. According to Homer's *Odyssey*, they are antique Loreleis whose enchanting voices signify peril and lead to death.

through a cavity in the wild mountain recesses of the Taygetos in Lacedæmon, called the breathing-hole of Tartaros.

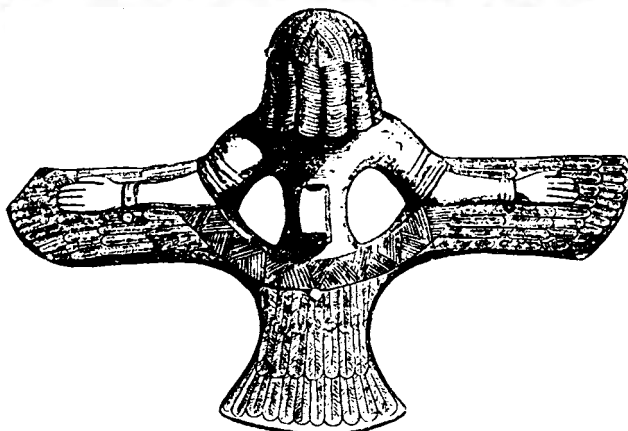
The rivers of the Under World are the Styx (the heinous stream), the Acheron (the river of woe), the Kokytos (the waters of wailing), and the Pyriphlegethon (the floods of fire). Charon ferries the shades across the Styx, provided they have been properly buried



FRONT VIEW OF THE DIVINE DOVE.¹

Ancient bronze figure found at Van, commonly called Semiramis, but apparently a form of the goddess Istar who was worshipped under the form of a dove.

(After Lenormant, *L'histoire de l'Or.*, Vol. IV., p. 124 and 125.)



REAR VIEW OF THE DIVINE DOVE.

and on payment of a fee, the smallest coin being sufficient, which was placed in the mouth of the dead. The souls drink of the waters of Lethe or oblivion, and lead a most monotonous, dreary life, with the exception of the great criminals who are tortured according to

¹ The artistic conception of a bird with a human head was not wanting in Western Asia, but the significance of these figures is not as yet definitely determined.

their deserts. Tantalos suffers hunger and thirst with water and fruits in sight; Ixion is forged on a fiery wheel; Sisyphos rolls up hill a big boulder which always slips down again; Tityos, the giant who made an attempt to assault Leto, is lacerated by vultures; and the Danaïdes try to fill a leaking vessel.

The descent of the souls of the slain suitors is dramatically described in the last book of the *Odyssey*:

"But Cyllenian¹ Hermes called out the souls of the suitors; and he held in his hands a beautiful golden rod, with which he soothes the eyes of men when he wishes, and raises them up again from sleep. With this indeed he drove them, moving them on; and they whirring followed. As when bats in the recess of a divine cave flit about whirring, when one falls from its place off the rock, and they cling to one another: so they went together whirring, and gentle Hermes led them down the murky ways. And they came near the streams of the ocean and



GREEK SKELETON DANCE. SILVER CUP FOUND AT BOSCOREALE.

the Leucadian rock,² and they went near the gates of the Sun, and the people of dreams: and they quickly came to the meadow of Asphodel, where dwell the souls, the images of the dead."

Death is never represented by Greek artists as a skeleton, which is the customary conception of the Middle Ages. Skeletons appear on Greek monuments, for instance on the beautiful silver mug found in Boscoreale, where the skeletons of poets and sages admonish the toper to enjoy the fleeting moment, for soon his body will be laid in the grave. Death is commonly conceived as the twin brother of sleep, a calm youth who might be mistaken for Eros, the god of love, were it not for the absence of the bow and arrows as well as for the inverted position of the torch of life in his hands.

¹ So called after the mountain Cyllene in Arcadia which was sacred to Hermes.

² The cliff of whitening bones.

The idea of death is so closely connected with the deities of life that almost all of them are represented in some way by their relation to the world underground, in which capacity they are called chthonian.¹ Thus we have a chthonian Zeus, a chthonian Aphrodite, a chthonian Dionysos, a chthonian Hermes, and even a chthonian Eros.

The Etruscans regarded death as a terrible demon, an ugly monster, carrying a weapon of slaughter in his hands. But this belief was considerably modified under the influence of Greek civilisation, and later monuments change the Etruscan god of death into a Nike-like divinity with a sword, who is accompanied by the good angel, acting as a comforter of the bereaved family.



THE GODDESS ISTAR.
Bas-relief in the British Museum.
(Lenormant, V., p. 259.)



CHARON FERRYING LOVERS
ACROSS THE STYX.
Greek Scarabæus. (After Wieseler, *Denkm.*, II., 870.
B. D., 379.)

The eleventh book of the *Odyssey* is devoted to a description of Odysseus's visit to the realm of the dead. Circe, the bewitching nymph of the island in the sea, had advised Odysseus to consult the blind prophet Tiresias who had passed into the Land of the Shades, and to sacrifice a black ram and a black ewe to Pluto and Persephone. But before our hero sets sail, one of his companions, Elpenor, falls from a roof and dies.

Odysseus describes his adventures in these words :

"The ship reached the extreme boundaries of the deep-flowing ocean ; where are the people and city of the Cimmerians, covered with shadow and vapour, nor does the shining sun behold them with his beams, neither when he goes towards the starry heaven, nor when he turns back again from heaven to earth ; but pernicious night is spread over hapless mortals. Having come there, we drew up our

¹ *χθόνιος*, belonging to *χθών*, the earth, or being related to the Nether World.

ship; and we took out the two sheep; and we ourselves went again to the stream of the ocean, until we came to the place which Circe mentioned. There Perimedes and Eurylochus made sacred offerings; but I, drawing my sharp sword from my thigh, dug a trench, the width of a cubit each way; and around it we poured libations to all the dead, first with mixed honey, then with sweet wine, again a third time with water; and I sprinkled white meal over it. And I much besought the unsubstantial heads of the dead, [promising, that] when I came to Ithaca, I would offer up in my palace a barren heifer, whichever is the best, and would fill a pyre with excellent things; and that I would sacrifice separately to Tiresias alone a sheep all black, which excels amongst our sheep.

"But when I had besought them, the nations of the dead, with vows and prayers, then taking the two sheep, I cut off their heads into the trench, and the black blood flowed: and the souls of the perished dead were assembled forth from Erebus, [betroted girls and youths, and much-enduring old men, and tender virgins, having a newly grieved mind, and many war-renowned men wounded with brass-tipped spears, possessing gore-smeared arms, who, in great numbers, were wandering about the trench on different sides with a divine clamour; and pale fear seized upon me.] Then at length exhorting my companions, I commanded them, having skinned the sheep which lay there, slain with the cruel brass, to burn them, and to invoke the gods, Pluto and dread Persephone. But I, having drawn my sharp sword from my thigh, sat down, nor did I suffer the powerless heads of the dead to draw nigh the blood, before I inquired of Tiresias. And first the soul of my companion Elpenor came; for he was not yet buried beneath the wide-wayed earth; for we left his body in the palace of Circe unwept for and unburied,¹ since another toil [then] urged us. Beholding him, I wept, and pitied him in my mind, and addressing him, spoke winged words: 'O Elpenor, how didst thou come under the dark west? Thou hast come sooner, being on foot, than I with a black ship.'

"Thus I spoke; but he groaning answered me in discourse, 'O Zeus-born son of Laertes, much contriving Odysseus, the evil destiny of the deity and the abundant wine hurt me. Lying down on the roof of the palace of Circe, I did not think of descending backwards. Having come to the long ladder, I fell down from the top; and my neck was broken from the vertebræ and my soul descended to Hades. Now, I entreat thee by those who are [left] behind, and not present, by thy wife and father, who nurtured thee when little, and Telemachus, whom thou didst leave alone in thy palace; for I know, that going hence from the house of Pluto, thou wilt moor thy well-wrought ship at the island of Ææa: there then, O king, I exhort thee to be mindful of me, nor, when thou departest, leave me behind, unwept for, unburied, going at a distance, lest I should become some cause to thee of the wrath of the gods: but burn me with whatever arms are mine, and build on the shore of the hoary sea a monument for me, a wretched man, to be heard of even by posterity; perform these things for me, and fix upon the tomb the oar with which I rowed whilst alive, being with my companions.'

"Thus he spoke; but I answering addressed him: 'O wretched one, I will perform and do these things for thee.'

"Thus we sat answering one another with sad words; I indeed holding my sword off over the blood, but the image of my companion on the other side spoke many things. And afterwards there came on the soul of my deceased mother,

¹ It is a well-known superstition, that the ghosts of the dead were supposed to wander as long as they remained unburied, and were not suffered to mingle with the other dead. Cf. Virg. *Æn.* vi. 325, sqq. Lucan. i. 11. Eur. *Hec.* 30. Phocylid. *Γράμ.* 96. Heliodor. *Æth.* ii. p. 67.

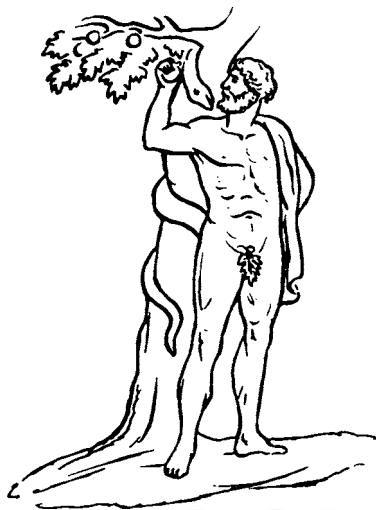
Anticlea, daughter of magnanimous Autolycus, whom I left alive, on going to sacred Ilium. I indeed wept beholding her, and pitied her in my mind; but not even thus, although grieving very much, did I suffer her to go forward near to the blood, before I inquired of Tiresias. But at length the soul of Theban Tiresias came on holding a golden sceptre, but me he knew and addressed:

"O Zeus-born son of Laertes, why, O wretched one, leaving the light of the sun, hast thou come, that thou mayest see the dead and this joyless region? but go back from the trench, and hold off thy sharp sword, that I may drink the blood and tell thee what is unerring."

"Thus he spoke; but I retiring back, fixed my silver-hilted sword in the



SIREN TAKEN FROM A TOMB.
Later conception. Now in the
Louvre. Bouillon Musée, III.,
Bas-relief 6. *B. D.*, 1645.



HERAKLES PLUCKING THE APPLE OF
THE HESPERIDES.

sheath; but when he had drunk the black blood, then at length the blameless prophet addressed me with words:

"Thou seekest a pleasant return, O illustrious Odysseus; but the deity will render it difficult for thee; for I do not think that thou wilt escape the notice of Poseidon, who has set wrath in his mind against thee, enraged because thou hast blinded his dear son (Polyphæmon the Cyclops). But still, even so, . . . thou mayest return to Ithaca, although suffering ills . . . but thou wilt find troubles in thine house, overbearing men, who consume thy livelihood, wooing thy goddess-like wife, and offering themselves for her dowry gifts. But certainly when thou

comest thou wilt revenge their violence . . . but death will come upon thee away from the sea, gentle, very much such a one, as will let thee die, taken with gentle old age; and the people around thee will be happy: these things I tell thee true.'

"Thus he spoke: but I answering addressed him: 'O Tiresias, the gods themselves have surely decreed these things. But come, tell me this, and relate it truly. I behold this the soul of my deceased mother, she sits near the blood in silence, nor does she dare to look openly at her son, nor to speak to him. Tell me, O king, how she can know me, being such a one.'

"Thus I spake; but he immediately answering addressed me: 'I will tell thee an easy word, and will place it in thy mind; whomsoever of the deceased dead thou sufferest to come near the blood, he will tell thee the truth; but whomsoever thou grudgest it, he will go back again.'

"Thus having spoke, the soul of king Tiresias went within the house of Pluto, when he had spoken the oracles: but I remained there firmly, until my mother came and drank of the blood; but she immediately knew me, and lamenting addressed to me winged words:

"My son, how didst thou come under the shadowy darkness, being alive? but it is difficult for the living to behold these things; [for in the midst there are mighty rivers and terrible streams, first indeed the ocean, which it is not possible to pass, being on foot, except any one have a well-built ship.] Dost thou now come here wandering from Troy, with thy ship and companions, after a long time? nor hast thou seen thy wife in thy palace?'

"Thus she spoke; but I answering addressed her, 'O my mother, necessity led me to Hades, to consult the soul of Theban Tiresias. For I have not yet come near Achaia, nor have I ever stepped upon my own land, but I still wander about . . . tell me the counsel and mind of my wooed wife, whether does she remain with her son, and guard all things safe? or now has one of the Grecians, whoever is the best, wedded her?'

"Thus I spoke; but my venerable mother immediately answered me: 'She by all means remains with an enduring mind in thy palace: and her miserable nights and days are continually spent in tears . . . I perished and drew on my fate. Nor did the well-aiming, shaft-delighting [goddess], coming upon me with her mild weapons, slay me in the palace.¹ Nor did any disease come upon me, which especially takes away the mind from the limbs with hateful consumption. But regret for thee, and cares for thee, O illustrious Odysseus, and kindness for thee, deprived me of my sweet life.'

"Thus she spoke; but I, meditating in my mind, wished to lay hold of the soul of my departed mother. Thrice indeed I essayed it, and my mind urged me to lay hold of it, but thrice it flew from my hands, like unto a shadow, or even to a dream: but sharp grief arose in my heart still more; and addressing her, I spoke winged words:

"Mother mine, why dost thou not remain for me, desirous to take hold of thee, that even in Hades, throwing around our dear hands, we may both be satiated with sad grief? Has illustrious Persephone sent forth this an image for me, that I may lament still more, mourning?'

"Thus I spoke; my venerable mother immediately answered me: 'Alas! my son, unhappy above all mortals, Persephone, the daughter of Zeus, by no means deceives thee, but this is the condition of mortals, when they are dead. For their nerves no longer have flesh and bones, but the strong force of burning fire subdues

¹ Artemis.

them, when first the mind leaves the white bones, and the soul, like as a dream, flitting, flies away. But hasten as quick as possible to the light; and know all these things, that even hereafter thou mayest tell them to thy wife.'

"There then I beheld Minos, the illustrious son of Zeus, having a golden sceptre, giving laws to the dead, sitting down; but the others around him, the king, pleaded their causes, sitting and standing through the wide-gated house of Pluto.

"After him I beheld vast Orion, hunting beasts at the same time, in the meadow of asphodel, which he had himself killed in the desert mountains, having an all-brazen club in his hands, forever unbroken.

"And I beheld Tityus, the son of the very renowned earth, lying on the ground; and he lay stretched over nine acres; and two vultures sitting on each side of him were tearing his liver, diving into the caul; but he did not ward them off with his hands; for he had dragged Leto, the celebrated wife of Zeus, as she was going to Pythos, through the delightful Panopeus.

"And I beheld Tantalus suffering severe griefs, standing in a lake; and it approached his chin. But he stood thirsting, and he could not get any thing to drink; for as often as the old man stooped, desiring to drink, so often the water being sucked up, was lost to him; and the black earth appeared around his feet, and the deity dried it up. And lofty trees shed down fruit from the top, pear trees, and apples, and pomegranates producing glorious fruit, and sweet figs, and flourishing olives: of which, when the old man raised himself up to pluck some with his hands, the wind kept casting them away to the dark clouds.

"And I beheld Sisypheus, having violent griefs, bearing an enormous stone with both [his hands]: he indeed leaning with his hands and feet kept thrusting the stone up to the top: but when it was about to pass over the summit, then strong force began to drive it back again, then the impudent stone rolled to the plain; but he, striving, kept thrusting it back, and the sweat flowed down from his limbs, and a dirt arose from his head.

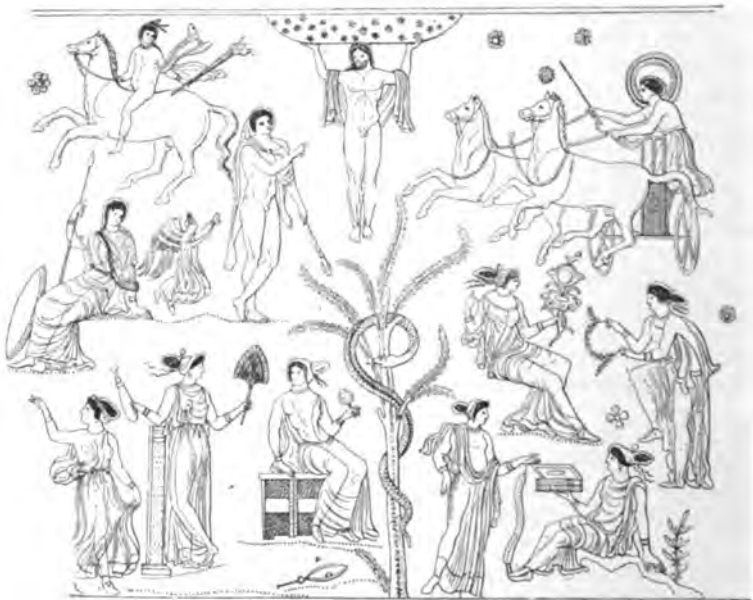
"After him I perceived the might of Hercules, an image; for he himself amongst the immortal gods is delighted with banquets, and has the fair-footed Hebe [daughter of mighty Zeus and golden-sandaled Juno]. And around him there was a clang of the dead, as of birds, frightened on all sides; but he, like unto dark night, having a naked bow, and an arrow at the string, looking about terribly, was always like unto one about to let fly a shaft. And there was a fearful belt around his breast, the thong was golden: on which wondrous forms were wrought, bears, and wild boars, and terrible lions, and contests, and battles, and slaughters, and slayings of men; he who devised that thong with his art, never having wrought such a one before, could he work any other such. But he immediately knew me, when he saw me with his eyes, and pitying me, addressed winged words:

"O Zeus-born son of Laertes, much-contriving Odysseus, ah! wretched one, thou too art certainly pursuing some evil fate, which I also endured under the beams of the sun. I was indeed the son of Zeus, the son of Saturn, but I had infinite labor; for I was subjected to a much inferior man, who enjoined upon me difficult contests: and once he sent me hither to bring the dog, for he did not think that there was any contest more difficult than this. I indeed brought it up and led it from Pluto's, but Hermes and blue-eyed Athene escorted me.'

"Thus having spoken, he went again within the house of Hades. But I remained there firmly, if by chance any one of the heroes, who perished in former times, would still come; and I should now still have seen former men, whom I wished, Theseus, and Pirithous, glorious children of the gods; but first myriads

of nations of the dead were assembled around me with a divine clamor; and pale fear seized me, lest to me illustrious Persephone should send a Gorgon head of a terrific monster from Orcus. Going then immediately to my ship, I ordered my companions to go on board themselves, and to loose the halers. But they quickly embarked, and sat down on the benches. And the wave of the stream carried it through the ocean river, first the rowing and afterwards a fair wind."¹

The Greeks clung to life and thus the shade of Achilles says to Odysseus (in the eleventh book of the *Odyssey*): "I would prefer to be the serf of the poorest and most destitute man on earth than to rule in the Under World over the departed dead." But even in the days when the Homeric songs were collected and reduced to



THE GARDEN OF THE HESPERIDES.²
Vase-picture. (Gerhard, *Ges. Abh.*, pl. II.)

the shape in which they are now, a more optimistic view of death began to take hold of the minds of the people.

The belief in the happy condition of the good and the deserving was introduced at an early date from Egypt. The Egyptian "Sechnit Aahlu," the abode of bliss, was changed into "Elysium" or the Islands of the Blessed, which were supposed to be situated

¹ Trans. by Buckley, *Behn's Library*.

² Atlas carries the stellar dome; Phosphoros, the morning star, and Helios (perhaps Selene) sweep across the heavens. The Hesperides in various postures (here seven in number) surround the tree with the golden apples, which are watched by the dragon. Herakles descends with club in hand.

in the West, in the regions of the Old World where the sun sets. Minos, Rhadamanthys¹ and Æakos are the judges who admit the worthy and condemn sinners to be confined in Tartaros.²

In the West, too, is situated the garden of the Hesperides, i. e., the Maids of Evening, who guard the tree of life with its immortality-giving apples.

It is noteworthy that only the shade of Heracles is in Hades; he himself lives in Olympus. Some elect men do not go down to Hades, but are transferred to the Elysian fields where they abide in a transfigured state without ever tasting death. Proteus prophesies this enviable fate to Menelaos, the husband of Helen:

"But for thee, O noble Menelaos, it is not decreed by the gods to die, and meet with thy fate in horse-pasturing Argos; but the immortals will send you to the Elysian plain, and the boundaries of the earth, where is auburn-haired Rhadamanthys; there of a truth is the most easy life for men. There is nor snow, nor long winter, nor ever a shower, but ever thus the ocean sends forth the gently blowing breezes of the west wind, to refresh men; [such will be thy fate] because thou possessest Helen, and art the son-in-law of Zeus!"—*Odyssey* IV, 561 ff.

All these myths have lost their significance for us, but to the Greek mind they were aglow with life and inspiration, and replete with noble thoughts.

The idea of the death of the soul and the notions of its fate in the Land of the Shades exercised a powerful influence over the moral conceptions of the people. Says Plato:

"When a man is confronted with the thought that he must die, fear and care overcome him concerning things which before he did not mind; for the myths, so called, about Hades, how the wrong-doer will be punished there, so long ridiculed, then cause his soul to turn back."

Ἐπειδὴν τις ἐγγὺς ἢ τοῦ οἴεσθαι τελευτῆσαι, εἰσέρχεται αὐτῷ δέος καὶ φροντίς περὶ ὧν ἔμπροσθεν οὐκ εἰσήει· οἱ τε γὰρ λεγόμενοι μῦθοι περὶ τῶν ἐν ᾧδον, ὡς τὸν ἐνθάδε ἀδικήσαντα δεῖ ἐκεῖ διδόναι δίκην, καταγέλωται τότε, τότε δὲ στρέφουσιν αὐτοῦ τὴν ψυχὴν.

—Plato, *De rep.*, I, 330d.

Greek religion had its serious aspects and was taken seriously by the Greeks. The moral teachings of the Greek sages show us the depth of their religious sentiments.

¹ The word Rhadamanthys also betrays Egyptian origin. As A-ahlu changed to Elysium, so the words Ra of Amenti, i. e., the god ruling in the Nether World, were Hellenised into Rhadamanthys.

² Homer speaks of Elysium and Rhadamanthys, while Hesiod following the Cretan version of the legend makes Kronos the ruler in the Islands of the Blessed.

CORNELIUS PETRUS TIELE.

IN COMMEMORATION OF HIS SEVENTIETH BIRTHDAY.

BY MORRIS JASTROW, JR.

THERE are few institutions of learning which can boast of so large an array of famous scholars as the venerable University of Leiden. It points with pride to Scaliger, Scholten, Boerhaave, Cobet, Dozy, Kuenen, and many others who were great men as well as great scholars—men who made a permanent impress upon the course of scholarship, without whom the world would be poorer in thought and less advanced in knowledge. Professor Tiele, who celebrates his seventieth birthday on the 16th of December, 1900, belongs to this group. His presence in the Leiden faculty sheds lustre upon the institution, and he stands to-day a living witness to the fact that the University of Leiden continues the traditions of the past. Born in a village on the outskirts of Leiden in 1830, he came to Amsterdam in 1856 to pursue theological, linguistic, and historical studies. Upon graduating, he entered the active ministry and after serving in some smaller places, was called to the charge of a congregation in Rotterdam in 1873. He remained there till 1877, when he was elected to a chair, first of Theology, and then of the History and Philosophy of Religion at the University of Leiden. Since that time he has remained identified with that institution, becoming a most influential member in its council, honored with the rectorship, training a large number of pupils, and unfolding a remarkable literary and scholarly activity.

Such are the few and simple facts of a life which is full of notable achievements in the domain of science. The late Max Müller, Tiele, and Albert Réville,—the latter his senior by a few years,—constitute a distinguished trio of exponents of a new

branch of investigation—the historical study of religions. Strange as it may seem, it is only within this century that scientific meth-



PROFESSOR TIELE IN HIS STUDY.
From his latest, unpublished, photograph.

ods have been applied to the investigation of religious phenomena. The patient gathering of facts and the interpretation of these facts

in the light of the actual course taken by a particular religion—the two chief axioms of the historical method—marked a new departure in scholarly activity which will always be associated with these three men. Early in his career, Tiele foreshadowed his peculiar adaptability for researches within the domain of religious history. In 1864 his first larger publication appeared, dealing with Zoroastrianism.¹ This monograph established his reputation as a scientific worker of the first order. It reveals the thorough learning, the sympathetic spirit, the keen insight into the workings of the religious instinct, and the philosophical grasp which characterise all of Professor Tiele's writings. It also shows the fine literary touch and the graces of a polished style, which make the products of his pen, even through the medium of a translation, delightful reading, quite apart from their intrinsic value. This work was followed five years later by the first part of a more ambitious undertaking on the comparative history of the Egyptian and of the Semitic religions.² In 1872 this important achievement was completed. Its recognition as the standard work on the subject was emphasised by the appearance of a French translation in 1882 introduced to the French public by a preface from the pen of Albert Réville, in which the importance of the work is well set forth. Suffice it to say that to-day, after twenty-eight years of incessant researches and vastly enriched material, Tiele's history still retains its position as a profound and suggestive contribution, which in its main points represents the established data of scientific investigation.

Previous, however, to the appearance of this French translation, Tiele's reputation had passed beyond the borders of his native land. In 1876, he published a general manual of the History of Religions down to the domination of the universal religions which in 1877 appeared in an English garb,³ and in 1880 in a French translation,⁴ and a few years later in a German translation. These publications are far from exhausting Tiele's activity during this first part of his career. Numerous articles, dealing either with the method of the historical study of religion or with some special points in one or the other of the many religions which at different times engaged his attention, appeared in the scientific or literary

¹ *De Godsdienst von Zarathustra* (Haarlem, 1864).

² French translation by G. Collins under the title *Histoire comparée des anciennes religions de l'Égypte et des peuples Sémitiques* (Paris, 1882).

³ *Outlines of the History of Religion* [Eng. translation, London, 1877].

⁴ A second edition was published in 1885.

periodicals of Holland—notably the *Theologische Tijdschrift* and *de Gids*—France and Germany. He found time in the midst of his special studies to make a thorough study of the cuneiform sources for Babylonian and Assyrian history, and produced in 1885¹ by far the best work on the subject and which to-day would merely require some supplemental chapters, embodying the additions to our knowledge of the early history of Babylonia and some modifications in the presentation of the later periods, to be as useful as it was fifteen years ago. It is to be hoped that the distinguished Professor will find the leisure to do this, for among younger scholars there is none who has shown himself to possess the faculty of writing history in the degree which Tiele manifests. Several volumes of sermons and addresses were also published by him between 1870 and 1885, as well as a volume of poetry which passed into a second edition. When a new edition of the *Encyclopædia Britannica* was called for, it was to the Leiden professor as the recognised most eminent authority on the subject that the English editors turned for the important article on "Religion"—forming quite a monograph by itself.

It is characteristic of the unabated activity of the man that at a time when most scholars begin to look forward to some years of rest from arduous labors, Tiele undertook two tasks of vast dimensions,—the one the preparation of an extensive work on the *History of Religion in Ancient Times Down to the Days of Alexander the Great*, the second the acceptance of the invitation of the Trustees of the Gifford Lecture Fund to come to Edinburgh and deliver two courses of lectures on the *Elements of the Science of Religion*. The first volume of the large history of religion appeared in 1893,² the second a few years later. His first course of Gifford Lectures was delivered in 1896, the second in 1897. On both occasions he was greeted by large and enthusiastic audiences, and it is generally admitted that the two volumes embodying these lectures³ constitute one of the very best of the Gifford publications. In these two publications Professor Tiele sums up in a measure the results of his life's work, the history affording him an opportunity to supplement his earlier publications by embodying the results of recent researches, while in the Gifford lectures he enunciates and elab-

¹ *Babylonisch-Assyrische Geschichte* (Gotha, 1885).

² A German translation by G. Gebrich under the title *Geschichte der Religion im Alterthum bis auf Alexander den Grossen* (Gotha, 1895).

³ *Elements of the Science of Religion*. Vol. I., Morphological. Vol. II., Ontological. (Edinburgh, 1897-1899.)

orates the general principles which are to serve as a guide in the study of religion, and likewise expresses his own mature views on some of the fundamental problems involved in the study.¹ These Gifford lectures thus have a permanent value, and whatever the results of further special researches may be, Tiele's latest publication will retain its place as an introductory manual, indispensable to any student of the history of religion.

When he began his career, the field of investigation which he chose had not yet found recognition in the University curriculum. As a result of his labors and those of the small band of co-workers, there are at least three countries in which provision has been made for the study,—at the four universities of Holland, in Paris, and in a number of American universities,—notably Chicago and Cornell,—while in England the establishing of the Hibbert and Gifford Lectures is an outcome of the enlarged interest in the historical study of religions, through the quiet but effective labors of such men as Cornelius Petrus Tiele. No wonder then that scholars in all parts of the world are uniting to do him homage on his approaching seventieth birthday. His splendid career forms an inspiration to younger men, and no less attractive than Tiele the scholar, is Tiele the man. A charming personality, made additionally attractive by innate modesty and extreme kindness of disposition, he is the natural center of any circle which he enters. Beloved by "town and gown," his beautiful house in Leiden, presided over by Madame Tiele—herself a rare hostess—is a gathering-place for the best that the city holds. At the International Oriental Congresses, he is singled out by the choice of his colleagues for special honors. His students become his loving disciples who regard their master as their firmest friend. Occupying, besides his chair at the University, the superintendence of the preparation for the ministry of the young men belonging to the "Remonstrant" section of the Protestant Church—which corresponds in a measure to the advanced Unitarian Church of England and America,—he has exerted a profound influence on the religious thought in his own country. Deeply interested in all that concerns Holland, his voice has often been uplifted to promote national ideals. His services to science and to education have been recognised by his sovereign, who on the occasion of her throne-ascension in 1899 capped the precious decorations bestowed upon him by granting him the rank of "Chevalier" of the Orange-Nassau order,—the highest honor in her gift for a scholar.

¹ See a review by the writer in *The New World* (1899, pp. 378-382).

A man of broad scholarship will generally be found to be a man of broad interests. Professor Tiele therefore counts among his friends, artists, litterateurs, statesmen, as well as the scholars in all professions, and not only in his own country, but in France, Great Britain, Germany, and Italy. He has received honorary degrees from the Universities of Bologna, Dublin, and Edinburgh, and learned societies in all parts of the world have conferred honorary membership upon him. Full of honors, he stands at the threshold of three score and ten with unabated vigor of mind and body. He may be seen any fine morning riding through the streets of Leiden on horseback, and presenting the appearance of a man in the fifties. A year ago he contemplated accepting an invitation from the American Committee for Lectures on the History of Religions to deliver courses of lectures in the prominent cities of the United States, and he declined merely on the score that he could not afford to take leave of absence for three months from his teaching duties. Young at seventy, he is full of plans for the future which in the interest of science it is earnestly hoped that he will be enabled to carry out.

FRIEDRICH MAX MÜLLER.

1823-1900.

BY T. J. MCCORMACK.

WITH the death of Friedrich Max Müller, on October 28th of this year, one of the most notable personages of the academic world passed from the stage of history. We say "stage" advisedly, for Max Müller's career was in more senses than one histrionic, in the best sense of that word, and there was hardly a moment of his life that he did not stand prominently and conspicuously before the public notice. To the unlearned world at large, he was the personification of philological scholarship,—a scholarship which he knew how to render accessible to his public in inimitably simple and charming style. There was no domain of philosophy, mythology, or religion, that he left untouched or unmodified by his comprehensive researches, and the Science of Language, which is the greatest scholastic glory of the German nation, would appear, judging from his books alone, to have received in him its final incarnation and Messianic fulfilment. There was no national or international dispute of modern times, ever so remotely connected with philological questions, but his ready pen was seen swinging in the thick of the combat, and his Sanskrit roots made to bear the burden of a people's destiny. He was the recipient of more academic honors, orders, titles, royal and imperial favors, perhaps, than any other scholar since Humboldt, and he bore the greatness that was thrust upon him with the grace and dignity of a born aristocrat. Many were the pummellings he received from the hands of his less favored but more plodding colleagues; yet their buffets of ink but served to throw his Titanic figure into greater relief, and to afford him an opportunity by his delicate, insidious irony to endear himself still more to his beloved public. Apart from his great and sound contributions to the cause of learn-

ing and thought, which none will deny, Max Müller's indisputably greatest service was to have made knowledge agreeable,—nay, even fashionable,—and his proudest boast was that when delivering his lectures on the Science of Language at the Royal Institution, Albemarle street was thronged with the crested carriages of the great, and that not only "the keen dark eyes of Faraday," "the massive face of the Bishop of St. David's," but even the countenances of royalty, shone out upon him from his audiences.

Friedrich Maximilian Müller was born in Dessau, Germany, on December 6, 1823. He was the son of the well-known German poet Wilhelm Müller, the great-grandson of Basedow, the reformer of national education in all Germany, and the grandson of a Prime-Minister to the Duke of Anhalt-Dessau. His environment was thus, from the start, one of the highest culture, and he received through its advantages a thorough education, especially in music, in which he was very proficient. At Leipsic, where he attended the famous Nicolai School, and afterwards the University, he lived in the musical house of Professor Carus, father of Prof. V. Carus, the translator of Darwin, where he gained the friendship of Mendelssohn, Liszt, David, Kalliwoda, Hiller, and Clara Schumann. Here, and afterwards at Berlin, Paris, and London, he made the acquaintance of the great notabilities of the day, among whom were numbered Rückert, Humboldt, Burnouf, Froude, Ruskin, Carlyle, Faraday, Grote, Darwin, Emerson, Lowell, and Holmes.

It was the Orientalist Burnouf that encouraged him to publish the first edition of the *Rig-Veda*,—a labor which brought him to England in 1846 and which he completed twenty-five years afterwards, having laid in the meantime the foundation of his career and become a fellow of Oxford, an incumbent of two professorships, and curator of the Oriental Works of the Bodleian Library. His edition of the *Rig Veda*, his *History of Ancient Sanskrit Literature*, and his *Six Systems of Indian Philosophy* are the works on which his technical reputation stands. Of that enormous and meritorious undertaking, the translation of the *Sacred Books of the East* (49 vols.), he was the editor, but personally translated only the *Upanishads*, the *Vedic Hymns*, the *Dhammapada* and some of the Mahâyâna texts. His numerous other writings, on the *Science of Language* (2 volumes, 1861–1864), the *Science of Thought* (2 volumes, 1887), the *Science of Religion* (6 volumes, Hibbert and Gifford Lectures, 1870–1892), important as they are, were rather popular and expository in their nature and devoted to the presentation of his own personal philosophy, which to the very end of his life he

propagated and defended with uncommon ardor and success. In all these works we read Max Müller the philosopher and theorist, not Max Müller the philologist. In fact, he expressly disclaimed being a philologist in the pure technical sense, and boldly hailed himself as the protagonist of a new science,—the Science of Language, which was to him but a means to an end, “a telescope to watch the heavenly movements of our thoughts, a microscope to discover the primary cells of our concepts.” And whatever impress he left upon the thought of his time, will have come from these works. In addition to this, he was the apostle and guide of the great public in the domain of linguistic science, and he ranks with Huxley and Tyndall as a shaper of popular scientific thought. Two of his little books, *Three Introductory Lectures on the Science of Thought* and *Three Lectures on the Science of Language*, together with the essay *Persona*, were published in the first numbers of *The Open Court* and afterwards appeared in book form. These books sum up in elegant and terse manner his philosophy, and we shall devote a few words to them after we have dwelt more at length on his interesting personality.

PERSONAL REMINISCENCES.

Max Müller's career as a scholar and philosopher was indissolubly connected with his career as a man, and his thought and his controversies in the latter half of his life were all colored by his dominant ambitions. In his delightful reminiscences, entitled *Auld Lang Syne*, published two years before his death (New York, Scribner's), Professor Müller has himself told many stories which are illustrative of the high estimation in which he was held by the world. One circles about the import of a witty letter of Darwin's, whom he had combated on the ground that language formed an inseparable barrier between brute and man. Romanes regarded the letter as an instance of Darwin's “extraordinary humility.” Professor Müller saw in it more of humor than humility, and modestly deprecates the notion that he should ever have been thought guilty of considering it as a trophy. We think that neither Romanes nor Müller has read the letter aright. The following is the text :

DOWN, BECKENHAM, KENT, 15th Oct., 1875.

MY DEAR SIR:—

I am greatly obliged to you for so kindly sending me your essay, which I am sure will interest me much. With respect to our differences, though some of your remarks have been rather stinging, they have all been made so gracefully, I declare

that I am like the man in the story who boasted that he had been soundly horse-whipped by a Duke.

Pray believe me, yours very sincerely,

CHARLES DARWIN.

In his *Recollections of Royalty*, he tells of an amusing incident that nearly prevented his compliance with an invitation to dine with the King of Prussia at Potsdam, together with Humboldt.

"But a curious intermezzo happened. While I was quietly sitting in my room with my mother, a young lieutenant of police entered, and began to ask a number of extremely silly questions—why I had come to Berlin, when I meant to return to England, what had kept me so long in Berlin, etc. After I had fully explained to him that I was collecting Sanskrit MSS. at the Royal Library, he became more peremptory, and informed me that the police authorities thought that a fortnight must be amply sufficient for that purpose (how I wished that it had been so!), and that they requested me to leave Berlin within twenty-four hours. I produced my passport, perfectly *en règle*; I explained that I wanted but another week to finish my work. It was all of no avail, I was told that I must leave in twenty-four hours. I then collected my thoughts, and said very quietly to the young lieutenant, 'Please to tell the police authorities that I shall, of course, obey orders, and leave Berlin at once, but that I must request them to inform His Majesty the King that I shall not be able to dine with him to-night at Potsdam.' The poor young man thought I was laughing at him, but when he saw that I was in earnest he looked thunder-struck, bowed, and went away. . . . It was not long, however, before another police official appeared, an elderly gentleman of pleasant manners, who explained to me how sorry he was that the young lieutenant of police should have made so foolish a mistake. He begged me entirely to forget what had happened, as it would seriously injure the young lieutenant's prospects if I lodged a complaint against him. I promised to forget, and, at all events, not to refer to what had happened in the Royal presence."

The young professor returned from Sans Souci in the carriage with Humboldt:

"I could not resist telling him [Humboldt] in strict confidence my little adventure with the police lieutenant, and he was highly amused. I hope he did not tell the King; anyhow, no names were mentioned."

He was on intimate terms also with the Crown Prince Frederick. He writes of their meeting at Ems, in 1871:

"At Ems the Prince was the popular hero of the day, and wherever he showed himself he was enthusiastically greeted by the people. He sent me word that he wished to see me. When I arrived, the antechambers were crowded with Highnesses, Excellencies, Generals, all covered with stars and ribands. I gave my card to an A. D. C. as simple Max Müller, and was told that I must wait, but I soon saw there was not the slightest chance of my having an audience that morning. I had no uniform, no order, no title. From time to time an officer called the name of Prince So-and-So, Count So-and-So, and people became very impatient. Suddenly the Prince himself opened the door, and called out in a loud voice, 'Maximilian, Maximilian, kommen Sie herein!' There was consternation in the crowd as I walked through, but I had a most pleasant half-hour with the Prince."

In 1888, Max Müller and the Crown Prince were again at Ems, but their meeting on this occasion was frustrated :

"The Crown Prince had sent me word that he wished to see me once more ; but his surroundings evidently thought that I had been favoured quite enough, and our meeting again was cleverly prevented. No doubt princes must be protected against intruders, but should they be thwarted in their own wishes ?"

Not to mention his having won sixpence from the Prince of Wales at whist, Professor Müller was the recipient of many other distinguished favors from the English Royal family, notably from Prince Leopold, who during his stay at Oxford always reserved for the great philologist some of his ancient and rare Johannisberger, from the famous *crue* of Prince Metternich.

"Once more the Prince was most kind to me under most trying circumstances. I was to dine at Windsor, and when I arrived my portmanteau was lost. I telegraphed and telegraphed, and at last the portmanteau was found at Oxford station, but there was no train to arrive at Windsor before 8 30. Prince Leopold, who was staying at Windsor, and to whom I went in my distress, took the matter in a most serious spirit. I thought I might send an excuse to say that I had had an accident and could not appear at table ; but he said : 'No, that is impossible. If the Queen asks you to dinner, you must be there.' He then sent round all the castle to fit me out. Everybody seemed to have contributed some article of clothing,—coat, waistcoat, tie, shorts, shoes and buckles. I looked a perfect guy, and I declared that I could not possibly appear before the Queen in that attire. I was actually penning a note when the 8 30 train arrived, and with it my luggage, which I tore open, dressed in a few minutes, and appeared at dinner as if nothing had happened.

"Fortunately the Queen, who had been paying a visit, came in very late. Whether she had heard of my misfortunes, I do not know. But I was very much impressed when I saw how, with all the devotion that the Prince felt for his mother, there was this feeling of respect, nay, almost of awe, that made it seem impossible to tell his mother that I was prevented by an accident from obeying her command and appearing at dinner."

PHILOSOPHICAL.

To Max Müller the problem of the origin of language was the problem of the origin of thought, and in the researches of the Science of Language were contained for him *in nuce* the solutions of the Science of Thought. Language, for him, was petrified reason, the geological record of human thought, as well as its living vehicle. He admires above all its simplicity :¹

"If we have, say, eight hundred material or predicative roots and a small number of demonstrative elements given us, then, roughly speaking, the riddle of language is solved. We know what language is, what it is made of, and we are thus enabled to admire, not so much its complexity as its translucent simplicity."

But whence these roots? Here is the delicate question.

¹ The following quotations are from Max Müller's *Three Introductory Lectures on the Science of Thought*, published by the Open Court Pub. Co.

"There are three things that have to be explained in roots, such as we find them :

1. Their being intelligible not only to the speaker but to all who listen to him ;
2. Their having a definite body of consonants and vowels ;
3. Their expressing general concepts."

In the explanation of these three characteristics, the solution of the problem lies. The sounds of nature, even those emitted by man as a part of nature, are in themselves unmeaning ; they are physical phenomena merely. And this is also true of the emotional interjections of rational human beings : they are mere puffs of wind, individual in their significance, and standing on the same level with the *bow-wow* of the dog.

"It was Professor Noiré who first pointed out that roots, in order to be intelligible to others, must have been from the very first social sounds.—sounds uttered by several people together. They must have been what he calls the *clamor concomitans*, uttered almost involuntarily by a whole gang engaged in a common work. Such sounds are uttered even at present by sailors rowing together, by peasants digging together, by women spinning or sewing together. They are uttered and they are understood. And not only would this *clamor concomitans* be understood by all the members of a community, but on account of its frequent repetition it would soon assume a more definite form than belongs to the shouts of individuals, which constantly vary, according to circumstances and individual tendencies."

But the most difficult problem still remains. How did those sounds become signs, not simply of emotions, but of concepts? For all roots are expressive of concepts ; our intellectual life is all conceptual. How was the first concept formed?

"That is the question which the Science of Thought has to solve. At present we simply take a number of sensuous intuitions, and after descrying something which they share in common, we assign a name to it, and thus get a concept. For instance, seeing the same color in coal, ink, and in a negro, we form the concept of black ; or seeing white in milk, snow, and chalk, we form the concept of white. In some cases a concept is a mere shadow of a number of percepts, as when we speak of oaks, beeches, and firs, as trees. But suppose we had no such names as black, and white, and tree, where would our concept be ?

"We are speaking, however, of a period in the growth of the human mind when there existed as yet neither names nor concepts, and the question which we have to answer is, how the roots which we have discovered as the elements of language came to have a conceptual meaning. Now the fact is, the majority of roots express acts, and mostly acts which men in a primitive state of society are called upon to perform ; I mean acts such as digging, plaiting, weaving, striking, throwing, binding, etc. All of these are acts of which those who perform them are *ipso facto* conscious ; and as most of these acts were continuous or constantly repeated, we see in the consciousness of these repeated acts the first glimmer of conceptual thought, the first attempt to comprehend *many things as one*. Without any effort of their own the earliest framers of language found the consciousness of their own repeated acts raised into conceptual consciousness, while the sounds by which

these acts were accompanied became spontaneously what we now call conceptual roots in every language."

These results quite agree with the psychological conclusions of Professor Mach (see *The Open Court* for June of this year, p. 348, "The Concept"), who regards concepts as bundles of directions for performing definite activities, and conceptual names and sounds as the keys that unlock the impulses to these activities: the whole resting on the conscious repetition of actions.

Professor Noiré emphasises another feature of the process. He thinks that "true conceptual consciousness begins only from the time when men became conscious of results, of facts, and not only of acts. The mere consciousness of the acts of digging, striking, binding, does not satisfy him. Only when men perceive the results of their acts—for instance, in the hole dug, in the tree struck down, in the reeds tied together as a mat—did they, according to him, arrive at conceptual thought in language."

Such, then, is the origin of the one hundred and twenty concepts to which the eight hundred roots of the Indo-European languages are reducible. "These one hundred and twenty concepts are the rivers that feed the whole ocean of thought and speech. There is no thought that passes through our mind, or that has passed through the minds of the greatest poets and prophets of old, that cannot directly or indirectly be derived from one of these fundamental concepts."

And these thoughts, "the whole of our intellect, all the tricks of the wizard in our brain, consist in nothing but addition and subtraction," in nothing but combination and separation. But what is it that is combined and separated?

We shall forego the metaphysical discussion of the possibility of sensation and experience which Max Müller interpolates at this stage of the development of his theory, and shall jump immediately to the point at issue,—his enunciation of his celebrated doctrine of the *identity of language and thought*. He says:

"How æthereal vibrations produce in us consciousness of something, how neurosis becomes æsthesia, we do not know and never shall know. But having the sensations of light or darkness within us, what do we know of any cause of darkness or any cause of light? Nothing. We simply suffer darkness, or enjoy light, but what makes us suffer and what makes us rejoice, we do not know,—*till we can express it*.

"And how do we express it? We may try what we like, we can express it in language only. We may feel dark, but till we have a name for dark and are able to distinguish darkness as what is not light, or light as what is not darkness, we are not in a state of knowledge, we are only in a state of passive stupor.

"We often imagine that we can possess and retain, even without language, certain pictures or phantasmas; that, for instance, when lightning has passed before our eyes, the impression remains for some time actually visible, then vanishes more and more, when we shut our eyes, but can be called back by the memory, whenever we please. Yes, we can call it back, but not till we can *call*, that is, till we can name it. In all our mental acts, even in that of mere memory, we must be able to give an account to ourselves of what we do, and how can we do that except in language? Even in a dream we do not know what we see, except we name it, that is, make it knowable to ourselves. Everything else passes by and vanishes unheeded. We either are simply suffering, and in that case we require no language, or we act and react, and in that case we can react on what is given us, by language only. This is really a matter of fact and not of argument. Let any one try the experiment, and he will see that we can as little think without words as we can breathe without lungs."

By words, however, Max Müller means signs. "All I maintain is, that thought cannot exist without signs, and that our most important signs are words."

"How is it, I have been asked, that people go through the most complicated combinations while playing chess and all this without uttering a single word? Does not that show that thought is possible without words, and, as it were, by mere intuition? It may seem so, if we imagine that speech must always be audible, but we have only to watch ourselves while writing a letter, that is, while speaking to a friend, in order to see that a loud voice is not essential to speech. Besides, by long usage speech has become so abbreviated that, as with mathematical formulas, one sign or letter may comprehend long trains of reasoning. And how can we imagine that we could play chess without language, however silent, however abbreviated, however algebraic? What are king, queen, bishops, knights, castles, and pawns, if not names? What are the squares on the chessboard to us, unless they had been conceived and named as being square and neither round nor oblong?

"I do not say, however, that king and queen and bishops are *mere names*.

"There is no such a thing as a mere name. A name is nothing if it is not a *nomen*, that is, what is known, or that by which we know. *Nomen* was originally *gnomen*, from *gnosco* to know, and was almost the same word as *notio*, a notion. A mere name is therefore self-contradictory. It means a name which is not a name; but something quite different, namely, a sound, a *flatus vocis*. We do not call an empty egg-shell a mere egg, nor a corpse a mere man; then why should we call a name without its true meaning, a mere name?

"But if there is no such thing as a mere name, neither is there such a thing as a mere thought or a mere concept. The two are one and inseparable. We may distinguish them as we distinguish the obverse from the reverse of a coin; but to try to separate them would be like trying to separate the convex from the concave surface of a lens. We think in names and in names only."

We are now in a position to grasp his view in its full import. The entire fabric of the mind is identical with the fabric of human speech, and the whole history of philosophy reveals itself but as the natural growth of language.

"Reason . . . is language, not simply as we now hear it and use it, but as has been slowly elaborated by man through all the ages of his existence on earth."

Reason is the growth of centuries, it is the work of man, and at the same time an instrument brought to higher and higher perfection by the leading thinkers and speakers of the world. *No reason without language, no language without reason.* Try to reckon without numbers, whether spoken, written, or otherwise marked, and if you succeed in that, I shall admit that it is possible to reason or reckon without words, and that there is in us such a thing, or such a power or faculty, as reason, apart from words."

Such, in epitome, is Max Müller's famous doctrine of the Identity of Language and Thought,—a doctrine in which he is supported by a long line of illustrious predecessors.¹ It is not our purpose in this place to offer any criticism of its general tenability. This has been done, in part, by the editor of this magazine in two essays in *The Monist*, to which readers desirous of more details are referred.² It merely remains for us to remark that Max Müller's theory, which it is sometimes difficult to grasp precisely in its critical points, is now held, even by those who admit the intrinsic truth of his assertions, only with great modification. His definition of thought is upon the whole arbitrary and made *pro domo*. The barrier between man and animal is not so impassable as he liked to imagine, and the tendency of recent thought in comparative psychology has swerved from his position. But the beauty of style, the wealth and breadth of learning, the controversial skill with which he advocated his doctrine are undeniable, and the controversies to which his zealous championing of his cause led have advanced the cause of truth immeasurably. And this, he avers in an impersonal moment, is his whole concern:

"You say I shall never live to see it admitted that man cannot reason without words. This does not discourage me. Through the whole of my life I have cared for truth, not for success. And truth is not our own. We may seek truth, serve truth, love truth; but truth takes care of herself, and she inspires her true lovers with the same feeling of perfect trust. Those who cannot believe in themselves, unless they are believed in by others, have never known what truth is. Those who have found truth, know best how little it is their work, and how small the merit which they can claim for themselves. They were blind before, and now they can see. That is all."

And again:³

"Scholars come and go and are forgotten, but the road which they have opened remains, other scholars follow in their footsteps, and though some of them retrace their steps, on the whole there is progress. This conviction is our best reward, and gives us that real joy in our work which merely personal motives can never supply."

¹ See the article "My Predecessors" in his *Three Lectures on the Science of Language*. Chicago: The Open Court Publishing Co.

² "The Continuity of Evolution," *The Monist*, Vol. II., p. 70; "Prof. F. Max Müller's Theory of the Self," *The Monist*, Vol. VIII., p. 123.

³ *Contributions to the Science of Mythology*, Vol. I., p. viii.

The cause of true religion also is under great obligation to the labors of Prof. Max Müller. The very spirit of his motives in publishing translations of the great *Sacred Books of the East* can have been productive only of good.

"I had a secret hope that by such a publication of the Sacred Books of all religions that were in possession of books of canonical authority, some very old prejudices might be removed, and the truth of St. Augustine's words might be confirmed, that there is no religion without some truth in it, nay, that the ancients, too, were in possession of some Christian truths. . . . We may well hope that a study of the *Sacred Books of the East* may produce a kindlier feeling on the part of many people, and more particularly of missionaries, towards those who are called heathen, or even children of Satan, though they have long, though ignorantly, worshipped the God who is to be declared unto them; and that a study of other religions, if based on really trustworthy documents, shall enable many people to understand and appreciate their own religion more truly and more fairly. Just as a comparative study of languages has thrown an entirely new light on the nature and historical growth of our own language, a comparative study of religions also, I hoped, would enable us to gain a truer insight into the peculiar character of Christianity, by seeing both what it shares in common with other religions, and what distinguishes it from all its peers."

And he lived to see his hopes realised by the marvellous transformations of the religious attitude wrought by the Parliament of Religions of our World's Fair.

As to his personal belief, which is not easy to grasp in its precise details in his works,¹ we may say generally that Professor Max Müller was a Vedantist. He was a believer in the Brahman doctrine of the *âtman*, or soul-in-itself, the monad soul; he believed in a "thinker of thoughts," a "doer of deeds," a Self within the person, which was the carrier of his personality, and a Self without, which was the carrier of the world, "God, the highest Self"; and these two Selves are ultimately the same Self: *Tat tvam asi*, That art thou, as the Brahman said.

These views of his have received full discussion in the article of Dr. Carus before referred to.² How deeply they entered his being and with what little modification they might have been transformed into the opposing theory of modern psychology, is apparent from the following beautiful passage quoted from *Persona* (see Vol. I. of *The Open Court*, pp. 505 and 543):

"We are told that what distinguishes us from all other living beings is that we are personal beings. We are persons, responsible persons, and our very being, our life and immortality, are represented as depending on our personality. But if

¹ Compare, for example, the remark of the *Pferdebürla*, in the delightful essay of that name in the *Deutsche Rundschau* for 1897: "Max, du bist vielleicht auch noch ein Gottesfabler. . . . Max, ein ganz Freier bist du immer noch nicht."

² *The Monist*, Vol. VIII., p. 123.

we ask what this personality means, and why we are called *persona*, the answers are very ambiguous. Does our personality consist in our being English or German, in our being young or old, male or female, wise or foolish? And if not, what remains when all these distinctions vanish? Is there a higher Ego of which our human ego is but the shadow? From most philosophers we get but uncertain and evasive answers to these questions, and perhaps even here, in the darkest passages of psychological and metaphysical inquiry, a true knowledge of language may prove our best guide.

"Let us remember that *persona* had two meanings, that it meant originally a mask, but that it soon came to be used as the name of the wearer of the mask. Knowing how many ambiguities of thought arose from this, we have a right to ask: Does our personality consist in the *persona* we are wearing, in our body, our senses, our language and our reason, our thoughts, or does our true personality lie somewhere else? It may be that at times we so forget ourselves, our true Self, as to imagine that we are Romeo and Juliet, King Lear, or Prince Hamlet. Nor can we doubt that we are responsible each for his own *dramatis persona*, that we are hissed or applauded, punished or rewarded, according as we act the part allotted to us in this earthly drama, badly or well. But the time comes when we awake, when we feel that not only our flesh and our blood, but all that we have been able to feel, to think and to say, was outside our true self; that we were witnesses, not actors; and that before we can go home, we must take off our masks, standing like strangers on a strange stage, and wondering how for so long a time we did not perceive even within ourselves the simple distinction between *persona* and *persona* between the mask and the wearer.

"There is a Sanskrit verse which an Indian friend of mine, a famous Minister of State, sent me when retiring from the world to spend his last years in contemplation of the highest problems:

"I am not this body, not the senses, nor this perishable, fickle mind, not even the understanding; I am not indeed this breath; how should I be this entirely dull matter? I do not desire, no, not a wife, far less houses, sons, friends, land, and wealth. I am the witness only, the perceiving inner self, the support of the whole world, and blessed."

* * *

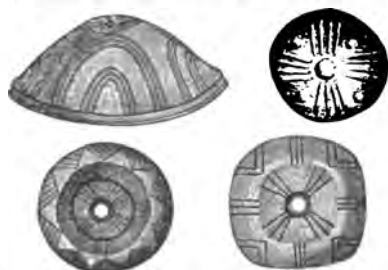
And now the great philologist himself has passed away; his Self also has been merged in the All-Self, creature in creator. The fulness and purport of his life are such as have been granted to few; his mission has been fulfilled to the utmost; and it was with this consciousness that he departed. As Tacitus said of Agricola, "Let us dwell upon and make our own the history and the picture, not of his person, but of his mind. . . . For all of him that we follow with wonder and love remains and will remain forever in the minds of men, through the endless flow of ages, as a portion of the past."

REV. W. W. SEYMOUR ON THE PRE-HISTORIC CROSS.

BY THE EDITOR.

THE late Rev. William Wood Seymour has devoted a stately volume¹ to an exposition of the significance of the cross in tradition, history, and art, reviewed by us some time ago in *The Open Court*,¹ and we believe it will be of interest to reproduce here some of its passages on the pre-Christian cross, with the accompanying illustrations.

"At Castione, near the station of Borgo San Donino, between



EARTHEN VESSELS FOUND AT CASTIONE.
(From De Mortillet's *Le Signe de la Croix*.)

Parma and Piacenza, there is a mound upon which is a convent. Originally that mound was the bed of a lake which was filled with relics of this ancient people; among them are earthen vessels, and upon the bottoms of some were rudely engraved crosses, as represented in the accompanying engravings.

"At Villanova, near Bologna, one of their burial-places has been discovered. More than one hundred and thirty tombs have been examined. They are carefully and symmetrically constructed of boulders, over which the earth has accumulated. Within each

¹ *The Cross in Tradition, History, and Art*. New York: G. P. Putnam's Sons.

² Vol. XIII., No. 1.

sepulchre was a cinerary urn containing calcined human remains, and sometimes half-melted ornaments. The urns were shaped like two inverted cones joined together, the mouth being closed with a little saucer. Near the remains of the dead were found solid double cones with rounded ends on which crosses were elaborately en-



CYLINDER.

HEADS OF CYLINDERS.

Cylinders found at Villanova. (From De Mortillet's *Le Signe de la Croix*.)

graved. In the vases of double cones around their partition was a line of circles containing crosses.

"There is another cemetery at Golasecca near the extremity of Lago Maggiore. A number of tombs have been opened; they belong to the same age as those of Villanova, that of the lacustrine habitations.

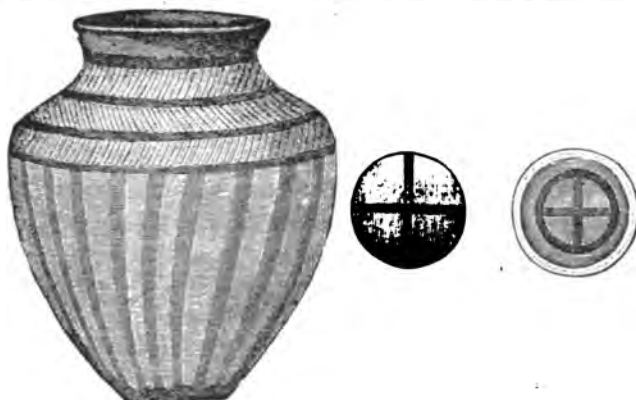


ACCESSORY VASE FOUND AT GOLASECCA.

(From De Mortillet's *Le Signe de la Croix*.)

"That which characterises the sepulchres of Golasecca, and gives them their highest interest,' says M. de Mortillet, who investigated them, 'is this,—first, the entire absence of all organic representation; we found only three, and they were exceptional, in tombs not belonging to the plateau;—secondly, the almost invari-

able presence of the cross under the vases in the tombs. When one reversed the ossuaries, the saucer lids, or the accessory vases, one saw almost always, if in good preservation, a cross traced thereon. . . . The examination of the tombs of Golasecca proves in a most convincing, positive, and precise manner, that which the *terramares* of Emilia had only indicated, but which had been confirmed by the cemetery of Villanova,—that above a thousand years



OSSUARY FOUND AT GOLASECCA.
(From De Mortillet's *Le Signe de la Croix*.)

before Christ, the cross was already a religious emblem of frequent employment."¹

"The most ancient coins of the Gauls were circular, with a cross in the middle. That these were not representations of wheels, as has been supposed, is evident from there being but four spokes,



ANCIENT GAULISH COINS.
(From Gould's *Curious Myths*.)

placed at right angles; and this symbol continued when coins of the Greek type took their place. The coins of the Volcæ Tectosages, who inhabited the region now known as Languedoc, were stamped with crosses, the angles of which were filled with pellets. The Leuci, who lived in the country of modern Toul, used similar devices. A coin figured in the *Revue des Numismatiques*, 1835, bears

¹ De Mortillet, *Le signe de la Croix avant le Christianisme*, Paris, 1866, Chap. III., pp. 98-127. Gould, *Myths*, Vol. II., pp. 103-105.

a circle containing a cross, whose angles are occupied by chevrons. Some of the crosses are surrounded by a ring of bezants, or pearls. Near Paris, at Choisy-le-Roy, was found a Gaulish coin, the obverse bearing a head, the reverse a serpent coiled around the circumference, enclosing two birds; between them is a cross with pellets at the end of each limb, and pellets occupying the angles. Similar coins have been discovered in Loiret and elsewhere. About two hundred coins were discovered, in 1835, at Cremiat-sur-Yen, near Quimper, in an earthen urn with ashes, in a tomb, showing that the cross was used in Armorica, in the age of cremation.

"In 1850, S. Baring Gould exhumed at Pont d'Oli, near Pau, the ruins of an extensive palace, paved with mosaic. The principal



CROSS, WITH BUST OF NEPTUNE. FOUND NEAR PARIS.

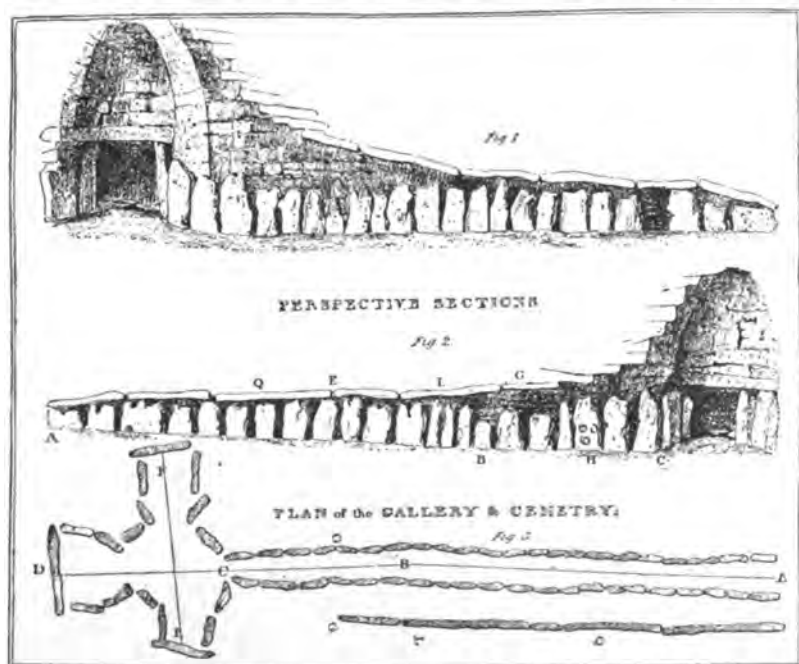
(From Gould's *Curious Myths*.)

ornamentations were crosses of different varieties. The pavement of the principal room was bordered by an exquisite running pattern of vines with grapes springing from drinking vessels in the centre of the sides. Within were circles composed of conventional roses, in the middle a vast cross, measuring nineteen feet eight inches by thirteen feet. The ground work of white was filled with shell and other fish, and in the centre was a bust of Neptune with his trident. The laborers exclaimed, '*C'est le bon Dieu, c'est Jésus.*' It may have been of post-Christian times, but, from the examples already given, Mr. Gould believes the cross to have been a sign well known to the ancient Gauls, and that this was their work."¹

"According to enthusiastic Irish antiquarians, their cave, or rather subterranean mound, temples are more ancient than any other ecclesiastical remains in Great Britain. One of the best known is that of New Grange, near Drogheda, in the county of Meath. It is formed of vast stones covered with earth. The ground plan is cruciform, about eighty feet in length by twenty-one in the transverse. The height of the gallery, at the entrance about two feet, gradually increases until it becomes nine. The temple ap-

¹ Gould, *Myths*, Vol. II., pp. 76-86. An able writer in the *Edinburgh Review* thinks that Gould has been misled by the tresul, or trident, and that the figure is that of Proteus, not Neptune. Vol. CXXXI., p. 335.

pears to have been dedicated to Thor, Odin, and Friga.¹ Vallancy considered the inscriptions, in Ogham and symbolic characters, the most ancient in Ireland. He translated that on the right of the long arm of the cross, 'The Supreme Being,' or 'Active Principle.' On the same side, thrice repeated, are characters of a somewhat like import, signifying 'The Great Eternal Spirit.' On the 'covering stone' of the east transept is, 'To the great Mother Ops,' or 'Nature.' In front of the head of the cross is 'Chance, Fate, or Providence.' On the north stone of the west transept is, 'The



SEPULCHRAL MONUMENT AT NEW GRANGE, NEAR DROGHEDA.

— (From Higgins's *Celtic Druids*.)

sepulchre of the Hero,' on a stone on the left of the gallery are 'men, oxen, and swine, probably signifying the several species of victims sacrificed at this temple in honor of universal Nature, Providence, and the names of the hero interred within.' Vallancy supposes that this tumulus was erected towards the close of the second century.² If not pre-Christian, it is at least the work of men who knew nothing of Christianity."³

¹ Wright, *Louthiana*, p. 15.

² Vallancy, "Col. Rel. Hib.," Vol. II., p. 221, quoted in Higgins, *Celtic Druids*, p. xliii.

³ For full description see Fergusson's *Rude Stone Monuments*.

It is very strange that our author, the Rev. W. W. Seymour, believes that the discovery of Christ's cross on Calvary is historical. He reproduces four pictures from Veldener's *Legendary His-*



S. HELENA IN JERUSALEM.

(From Veldener's *The Legendary History of the Cross*.)



DISCOVERY OF THE CROSSES.

(From Veldener's *The Legendary History of the Cross*.)

tory of the Cross which in themselves are interesting, and maintains that the story itself as told in the legend is probable. There is no

need of refuting the legend or its various miracles; be it sufficient to say that contemporary authors of the Empress Helena know absolutely nothing of the discovery, and that the cross supposed to



TEST OF THE TRUE CROSS.

(From Veldener's *The Legendary History of the Cross*.)



S. HELENA DEPOSITS A PORTION OF THE CROSS IN JERUSALEM.

(From Veldener's *The Legendary History of the Cross*.)

have been discovered in the place and attested by miracles was a source of rich income to Cyril, a bishop of Jerusalem.

THE CHINESE ALTAR OF BURNT OFFERING.¹

Communicated.

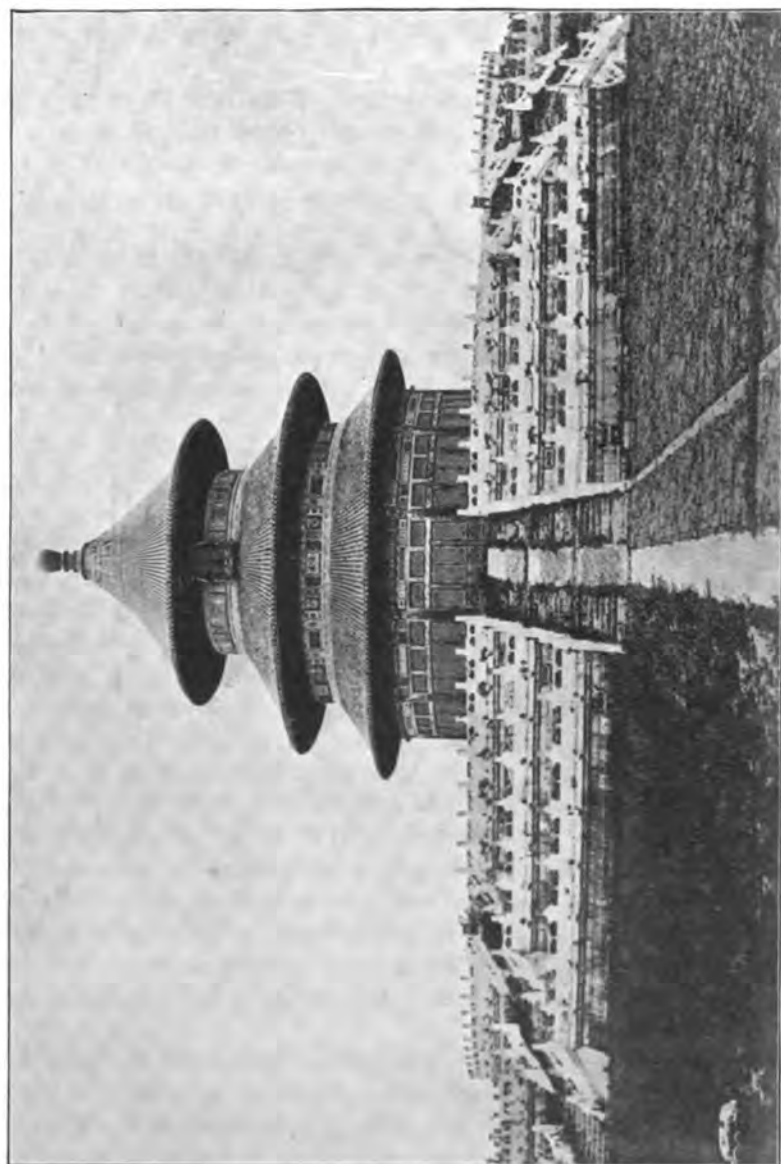
ON the southeast of the Altar of Heaven in Peking, at the distance of an arrow's flight, stands the Altar for Burnt Sacrifices. It is in the form of a large furnace faced with green porcelain, and it is nine feet high. It is ascended on three sides—east, south and west—by a green porcelain stair-case. Ever since the Chinese received the knowledge of the art of glazing in the fifth century they have been able greatly to improve the appearance of buildings by the use of colored tiles and colored bricks.

The bullock is placed inside the furnace altar upon a substantial iron grating, underneath which the fire is kindled. Through a door for the ashes on the north side, if I remember rightly, the grate may be seen, and I remember noticing the charred bones of the bullock over and under the grating. But they are better seen by the observer from the top by ascending one of the stair cases. The three stair cases are probably all used by those who carry the bullock, a male of two years old, the best of its kind and without blemish. The furnace is called in Chinese *liu-lu*, "furnace of the fire-sacrifice."

At 4.45 A. M. the emperor on the occasion of the sacrifice puts on his sacrificial robes and goes to the south gate of the outer wall which encircles the south altar. He dismounts from his *nien*, as the imperial sedan is called, and walks to the yellow tent on the second terrace of the altar. He has mounted the altar on the south side, first ascending nine marble steps and then walking across the first terrace. He mounts nine more marble steps to the yellow tent. Leaving the yellow tent there are nine more steps to the upper terrace. He advances to the north and kneels on the central round stone. Just at this moment the fire of the burnt sacrifice

¹ By Y. E. in the *China Review*.

is kindled "to meet the spirit of Shang-ti (God)" as the language is. The emperor then proceeds to burn incense to Shang-ti and



THE NORTH ALTAR OF THE TEMPLE OF HEAVEN. (From R. K. Douglas's *Society in China*.)

to each of his ancestors, whose tablets are arranged in wooden huts on the northeast and northwest portions of the altar.

The altar on this upper terrace where the offerings are arranged

before the tablets is ninety feet wide. He kneels before Shang-ti and burns incense to his ancestors, and while he kneels three times and makes nine prostrations, bundles of silk, jade cups, and other gifts are presented, and the musicians play the ancient melody called *King-ping-chi-chang*.

When the Jewish high priest entered the holy place he bore the names of the children of Israel on the breast-plate on his heart. The breast-plate is the *pu-kwa* of the Chinese, a square embroidered cloth worn over the heart with emblematic figures upon it. The archæological connexion of the *pu-kwa* with the breast-plate cannot be questioned by any reasonable critic. But the Chinese idea of the high priest unites royalty with priesthood, and belongs to the patriarchal age rather than to the specially Mosaic institutions.

The *brazen altar* was in the wilderness placed in the court in front of the tabernacle. It is also called in Scripture the altar of burnt offering. Dr. E. P. Barrows in his *Biblical Geography and Antiquities*, p. 507, London edition, says it was "a hollow frame of acacia wood, five cubits square and three cubits high, with horns at the four altars." The Chinese altar of burnt offering is, I believe, a cube in shape and nine feet each way. It is therefore much larger than the Hebrew altar. It is built of hewn stones, is faced with green bricks and is ascended by steps. Thus disagreeing from the Mosaic requirements it¹ belongs altogether to the præ Mosaic religion of the world. The account in Exodus xxvii. 4. 5, says, "Thou shalt make for it a grating of net-work of brass, and upon the net shalt thou make four brazen rings in the four corners thereof, and thou shalt put it under the ledge round the altar beneath, that the net may reach half way up the altar." Dr. Barrows continues: "Some have supposed that this grate of net-work was placed within the altar as a receptacle for the wood of the sacrifice. But in this case it could not well have been sunk half way down, and besides it contained the rings for the staves by which the altar was borne, a decisive proof that it was without the altar. Of those who adopt this latter view some, as Jonathan in his Targum, make the grate horizontal."

No rings are needed for a fixed altar, because it is not intended to be carried. The servants whose duty it is to carry the slain bullock from the slaughter-house on the east side of the altar at some distance, convey it by means of shoulder poles. Judging by the size of the Chinese altar the bearers and their fellow-servants would mount the altar by the east, west, and south steps at the

¹ Ex., xx. 25.

same time, and lay the animal down on the iron grate in the manner seen at a funeral when, in perfect order and decorous silence, the bearers let down the coffin into a newly-opened tomb. The officers having charge of this duty wait for the emperor. When he kneels they can see him do so on the northwest in the center of the high altar. They give the signal, and the fire is kindled by the door on the north side just below the grating. There seems no reason then why we should not explain the grate mentioned in Exodus as corresponding to the Chinese grate in the Altar of Heaven.

The Mosaic net-work was probably inside and outside of the altar. In Peking it is only inside. This suits the meaning of the biblical word "beneath." The brass or copper used was produced in Arabia Petraea. In China iron is much more abundant than copper, and consequently iron has always been employed. Iron is mentioned in that part of the *Book of History* which belongs to the Hia dynasty, B. C. 2000. The sole use of the grate is to hold the victim in the burnt sacrifice and afford free passage for heat and draught. The grating of Exodus was not only so used but was also employed outside for ornament and possibly as a support for the feet and hands of the Levites ministering at the altar. The place of the grate was half way up the altar, both within and without.

MISCELLANEOUS.

THE PARIS PEACE CONGRESS AND THE TRANSVAAL WAR.

In one respect, at least, the International Peace Congress is superior to the Inter-Parliamentary Conference. The rule of the latter is to avoid questions of current interest, and to keep more to the vague, abstract, and theoretical side of things. The International Peace Congress, on the contrary, has a section whose business it is to study questions of the day; and the Permanent International Peace Committee, whose headquarters are at Berne, draws up an annual report on the events of each year, which is signed by the Committee's honorary secretary, Monsieur Élie Ducommun.

This year, for instance, three questions were submitted to the Congress: the Transvaal, China, and Finland.

It was to be expected that the Transvaal question would call forth the greatest show of feeling. Egged on by their English friends, Mr. Philip Stanhope and Dr. Clark, etc., almost all the friends of peace on the continent allowed themselves to be carried away over the question of the Transvaal. These English gentlemen are naturally the declared enemies of Chamberlain and the present Conservative Cabinet, and what they did was to involve their international friends on the Continent in a sort of anti-ministerial manifestation which in reality was out of place anywhere else than in England.

The resolution they proposed in the Congress was conceived in such violent language that, even with a reporting committee composed entirely of Boerophiles, and an assembly of delegates, myself excepted, probably all Boerophiles too, it was judged expedient to tone down the wording considerably.

What I did in the reporting committee was to go through the facts and discuss their bearing in detail. I showed how, in his dispatch of the 29th of November, 1889, Lord Derby told the Boers that if they desired to discuss the suzerainty question they must not dream of modifying the Convention of 1881. Indeed, Article 4 of the Convention of 1884 clearly proves the maintenance of England's suzerainty; while Article 14 assigns to her the responsibility for the liberty and security of all foreigners residing in the Transvaal.

I showed by the murder of Edgar what interpretation the Boers gave to the principles of justice; but the retort of all the members of the Congress was:

¹ The present little article by M. Yves Guyot, ex-deputy and ex-minister of France, and editor of the *Sibyle*, is published as a piece of interesting evidence of the difficulties under which even a Peace Congress may labor in its efforts to attain a just and unbiassed settlement of international difficulties. It may be noted, also, that M. Guyot was the only distinguished publicist on the side of England in the Transvaal war.—*Ed.*

"Kruger asked for arbitration, and Chamberlain refused it." From original documentary evidence I proved that for Kruger the arbitration proposal was only put forward in order to secure the annulment of the Conventions of 1881 and 1884, and consequently could not be accepted by the English government; finally, I read Kruger's proposal made on the ninth day of the Bloemfontein Conference (June, 1899).

"President Kruger said in conclusion :

" 'Give me Swaziland, the indemnity due for the Jameson raid, and arbitration in return for the franchise. Otherwise I should get nothing.'

"These points cannot be separated.

"On the 9th of June, Dr. Reitz drew up proposals relative to the arbitration, but reserved to each country the right to withhold and exclude the points that seemed too important to be submitted to arbitration.

"What was the meaning of these reservations? And, moreover, in the constitution of the Committee, the third arbitrator, acting as umpire, was to be a stranger; he it was who would decide."

I hate war. So, when I realised the seriousness of the situation, I proposed what would have been a *modus vivendi*, liberal in its provisions and honorable to both sides: viz., "Autonomy for the mining districts." Mr. Chamberlain then informed me by a letter that this had already been proposed by the English government in 1896 and again at Bloemfontein in 1899. On each occasion the Boers refused to entertain the proposal.

The only conception of liberty possessed by Mr. Kruger and his partisans was that which permitted the Uitlanders to be oppressed and spoiled; and I foresaw that if the President of the Transvaal continued his shuffling policy, England would ultimately be forced to go to war. A bull-dog may for a time disdain the snarlings and snappings of a mongrel, but sooner or later he becomes exasperated, turns on the mongrel and breaks its back.

This I said in my protest yesterday before the Congress, and I added: "You speak of arbitration; what arbitration? on what point? Ought it, for instance, to have recognised the right arrogated by the Boers to continually violate the Conventions of 1881 and 1884?"

I did not expect my words would have sufficient power to displace the majority. I may hope, however, that they contributed to the milder modification of the original resolution. What is more significant is the rejection to-day of a vote relative to maintaining the independence of the Boer Republics. The chairman, Monsieur Richet, took care to insist upon the statement that there were no Anglo-phobes present at the Congress, which was perhaps saying rather too much. At any rate, the discussion was a great success, and I could speak without being interrupted.

PARIS, October, 1900.

YVES GUYOT.

THE CHILD.

Thou, little Child, art Beast and God,
Past and Futurity;
Thou tread'st the paths our Fathers trod,
The paths our Sons shall see.

Thine is the Dross of that long Climb,
The still-remembered Past ;
The Golden Age thou know'st sometime
Throughout all Life shall last.

The Savage sees but with thy Light,
The Sage no wiser is ;
Thou hold'st the Phantoms of the night,
The day's Realities.

Thou art the Father of the Man,
The Brother of the Race ;
Thou mirror'st the Barbarian,
Thou hint'st the Angel's grace.

The Genius is the Eternal Child,
Fleck'd with the Race's sin ;
The Poet sings his "wood-notes wild,"
Born of thy childish din.

By Avon's stream thy Fancy knew
Through all men's Souls to move ;
And with thy Heart, "the blessèd Jew"
Turns all the world to Love.

The Prophet still must tell thy Dreams,
The Teacher pupil be ;
And all our deepest Knowledge seems
But Wisdom caught from thee.

The Hero, in thy Faith, still strives
To reach the Blessèd Isles ;
At Heaven's gate our human lives
Repeat their Baby smiles.

O helpless Child, thy coming wrought
The miracle of Man ;
Through thee were Love and Pity taught
The Beast put under ban.

And Woman ! Nature cast her form
Upon the self-same mould,
That thou, amid life's Stress and Storm,
Should'st linger to grow Old.

Man, treading in the steps of them,
Shall Gentler, Sweeter be,
Till every Home is Bethlehem
Without its Calvary.

O mighty Child, 'tis Science names
 Thy Kingdom upon Earth,
 And, with the Son of Man, proclaims
 The Greatness of thy Birth.

Now Priest and Man of Science bow
 Before thy face; the Clod
 Touches Divinity, and thou
 Instinct with All, forshadow'st God.

ALEX. F. CHAMBERLAIN, PH. D.

CLARK UNIVERSITY, Worcester, Mass.

THE HISTORY OF THE DEVIL.

Under 'the title of *The History of the Devil and the Idea of Evil from the Earliest Times to the Present Day*,¹ Dr. Paul Carus has recently collected in systematic and unified form the numerous papers and essays which for several years past he has either published in *The Open Court* and *The Monist* or delivered as independent lectures before various audiences on the history and folklore of demonology and the philosophy of good and evil. From the point of view of contents and illustrations, this book is probably the most exhaustive popular presentation of the subject that exists. The enumeration of the illustrations alone would take up several pages of *The Open Court*, and they have been drawn from every period of history, from the monuments and archæologic remains of antiquity as well as from the pictorial and sculptural records of mediæval and modern times. Not a phase of the figured conceptions of the ideas of good and evil in their development among any of the thinking nations of humanity has been omitted, and the panoramic survey of demonologic forms which is here marshalled before our bodily vision is, in the vividness and enduring qualities of its impression, far beyond anything that portrayal by words could hope to equal.

And the breadth of pictorial representation is only surpassed by the plenitude of the sources from which the text has been drawn,—the scientific and historical literature of several millenniums. Starting with a brief philosophical discussion of the ideas of good and evil, we are introduced to the subject of devil-worship and human sacrifices among savage tribes (with their survivals among the modern nations), and from thence to the demonolatry and related religious conceptions of the ancient Egyptians, Accadians, and Semites (Assyrians and Babylonians). The dualism of the Persians is next considered, following which the important Israelitic period is treated. Brahmanism, Hinduism, and Buddhism are all rich in demonologic lore, and some sixty odd pages are devoted to their exuberant conceptions. Then under the caption of "The Dawn of a New Era," that period of abnormal religious unrest and fermentation which is marked by the Gnostic, Apocryphal, and Apocalyptic literature of the Alexandrian and Western Asiatic empires is portrayed,—an influence which extended to the time of Jacob Boehme. To early Christianity, the demonologic notions of Jesus and his Apostles, the eschatology of the Jews, and the Hell of the early Church, forty pages are consecrated.

Reverting in a lengthy chapter to "The Idea of Salvation in Greece and

¹ Chicago: The Open Court Pub. Co.; London: Kegan Paul, Trench, Trübner & Co. 1900. Large 8vo, 500 pages, 311 illustrations. Cloth, \$6.00 (30s.).

Italy," which was so influential in forming present Christianity, the author proceeds to the interesting demonology of Northern Europe, and thence through the miracles and magic of savages to the period of the "Devil's Prime," the wonderful and incredible history of witchcraft, the Inquisition, and the no less shocking witch-persecutions of the age of the Reformation. Lastly, Dr. Carus has portrayed at length the part which the Devil has played in verse and fable, concluding with a philosophical dissertation on the nature of good and evil, the rôle of science in clarifying our religious conceptions, the standard of ethics, and the idea of God.

The nature of his views on these questions is sufficiently familiar to the readers of *The Open Court* to dispense us from entering into a detailed exposition, and it only remains for us to add a word as to the letter-press and handsome exterior dress of the work. The publishers have spared neither pains nor expense in this regard, and the broad margins, large type, fine paper, tinted illustrations at the beginnings and ends of chapters, and the black and red binding illuminated with a cover-stamp from Doré, all combine to make the work a veritable *édition de luxe*.

μ.

EROS AND PSYCHE.

The readers of *The Open Court* will doubtless recall with pleasure Dr. Carus's modernised version of the Greek fairy-tale of Eros and Psyche, which appeared in



THE SHEPHERDESS OF LOVES.
(Frieze by Thorwaldsen.)

The Open Court for February and March of this year, together with Thumann's deservedly-famed and genuinely classical illustrations. This story has now been

published in book form, in a sumptuous style, quite befitting its inward beauty of thought and sentiment. Mr. E. Biedermann, a German-American artist, has made for it a cover-design of classical conception; the text has been printed from large Pica type on specially-manufactured Strathmore deckle-edge paper; while the largest of the illustrations have been reproduced on separate sheets with ornamental borders. By its elegant appearance and its mythologically religious character the work will be peculiarly appropriate as a Holiday gift-book.¹

Dr. Carus, in the philosophical preface which he has written for the book, has not failed to take advantage of the opportunity to introduce additional illustrations from classical sources, including the Eros of Praxiteles, which we here reproduce, and the Sale of Cupids of Thorwaldsen. His preface deals with the ethical and mythological significance of the tale, in which he sees the religious life of antiquity reflected more strongly than in any other work, not excepting the poems of Homer and the *Theogony* of Hesiod. He contrasts the story of Eros and Psyche with the folklore tales of the Teutonic races, which also depict the popular attitude toward the problems of life, especially toward that problem of problems,—the mystery of death and the fate of the soul in the unknown beyond. Wholly apart, therefore, from its intrinsic romantic interest, the book possesses a deep moral import, being the solution that the popular spirit of the greatest intellectual nation of antiquity gave of the interrelation of love, birth, and death.



THE EROS OF PRAXITELES.

Torso found in Centocelle; now in the Vatican.



THE SALE OF THE CUPIDS.

Frieze by Thorwaldsen.

Says Dr. Carus: "The redactor of Eros and Psyche, as here retold, has brought out the religious and philosophical *Leitmotive* with more emphasis than it possesses in the tale of Apuleius. By obliterating the flippant tone in which their satirical author frequently indulges, and by adding a few touches where the real significance of the narrative lies, he believes that he has remained faithful to the

¹*Eros and Psyche*. A Fairy-Tale of Ancient Greece. Retold After Apuleius. By Paul Carus. Illustrations by Thumann. Chicago: The Open Court Publishing Co.; London: Kegan Paul, Trench, Trübner & Co. 1900. Pp., xv, 99. Price, \$1.50 (6s.).

- "spirit of the ancient *Märchen*, and thereby succeeded in setting in relief the serious nature of the story and the religious comfort that underlies this most exquisite production of human fiction." μ.

HUME'S ENQUIRY CONCERNING HUMAN UNDERSTANDING.¹

Following Descartes's *Discourse on Method*, The Open Court Pub. Co. has issued, as the second philosophical classic of their Religion of Science Library,



DAVID HUME

(1711-1776.)

Scottish Philosopher. (After the painting by Sir Joshua Reynolds.)

David Hume's *Enquiry Concerning Human Understanding*. Other philosophical classics, like Kant's *Prolegomena*, are to follow, and it is hoped that the series

¹*An Enquiry Concerning Human Understanding*. By David Hume. Reprinted from the edition of 1777. With Hume's Autobiography and a letter from Adam Smith. Chicago: The Open Court Pub. Co. 1900. Pages. 180. Price, 25 cents (1s. 6d.).

will thus eventually form a consecutive and comprehensive course of philosophical reading in the great original works of philosophy, which are far less bulky in size and more attractive as to matter than is generally supposed.

The present volume, which upon the whole is easy and entertaining reading, is an unannotated reprint, merely, of the *Enquiry Concerning Human Understanding*, made from the posthumous edition of 1777, together with Hume's charming autobiography and the eulogistic letter of Adam Smith, usually prefixed to the *History of England*, but deserving of wider circulation. These additions, with the portrait by Ramsay, which forms the frontispiece to the volume, render the picture of Hume's life very complete. The volume has also an index.

With the great public, Hume's fame has always rested upon his *History of England*,—a work now antiquated as history and remarkable only for the signal elegance and symmetry of its style. This once prevalent opinion, however, our age has reversed, and, as has been well remarked,¹ "Hume, the spiritual father of Kant, now takes precedence over Hume, the rival of Robertson and Gibbon." It is precisely here, in fact, that Hume's significance for the history of thought lies. With him modern philosophy entered upon its Kantian phase, became critical and positivistic, became a theory of knowledge. For the old "false and adulterate" metaphysics he sought to substitute a "true" metaphysics, based on the firm foundations of reason and experience. His scepticism—and of scepticism he has since been made the standard-bearer—was directed against the old ontology only, and not against science proper (inclusive of philosophy). "Had Hume been an absolute sceptic, he could never have produced an Immanuel Kant. . . . The spirit of the theoretical philosophy of Hume and Kant, the fundamental conception of their investigations, and the goal at which they aim, are perfectly identical. Theirs is the critical spirit, and positive knowledge the goal at which they aim. To claim for Kant the sole honor of having founded criticism is an error which a closer study of British philosophy tends to refute."²

Of Hume's purely philosophical pieces the present book and the *Enquiry Concerning the Principles of Morals* are, in their precise, lucid, and engaging style, the most representative and the most elegant. The *Enquiry Concerning the Principles of Morals* will be published in a succeeding number of the Religion of Science Library (having the portrait here reproduced for its frontispiece), and together these two pieces will afford an exact and comprehensive knowledge of Hume's philosophy.

μ.

REINCARNATE.

From sky to sky a silent land,
Through which an idle river flows,
Upon its banks, on either hand,
The purple iris blows.

The sunlight faints in languorous stream,
The sunlight fades in empty air—

¹ Alfred Weber, *History of Philosophy*, New York, 1896.

² Weber, *loc. cit.*, pp. 419-420.

A long, slant, timeless, yellow gleam,
On all, and everywhere.

A long, slant, timeless, yellow ray,
On which I look, in which I sow—
What seed, O Soul, that fills to-day
With ghosts of Long Ago?

With ghosts of old Egyptian sand
Where Nilus oozes home to sea,
With half-built pyramids, that stand
And frown through time on me?

For was I slave, or was I king,
I only, wondering, startled, know
(Let long, slant suns be quivering)
Such lights were long ago,—

Were long ago, and crept and twined
About my soul, and coiled and curled,
When in some dead Deed out of mind
I won or lost a world.

PASADENA, CAL.

L. C. BARNES.

BOOK REVIEWS.

WHENCE AND WHITHER: An Inquiry Into the Nature of the Soul, Its Origin, and Its Destiny. By *Dr. Paul Carus*. Chicago: The Open Court Pub. Co. 1900. Pages, viii, 188. Price, cloth, 75 cents (3s. 6d.).

The present booklet is the latest utterance of the editor of *The Open Court* upon the crucial problems evoked by the conflict of science with the conceptions of the traditional religions. His attitude is reconciliatory. While an energetic supporter of the monistic psychology, which has been termed by some of its advocates as a psychology without a soul, while thoroughly aware of the gravity of the charges that have been made against the old-fashioned dualistic conception of the soul as a metaphysical thing-in-itself, and conscious that modern science demands a thorough-going revision of our religious views, he still insists that the facts of man's soul-life remain the same as before, and that the new psychology is not a psychology without a soul, but a psychology *with a new interpretation of the soul*. He says: "The soul, it is true, can no longer be regarded as a mystical being, as an entity, or an essence,—a something in itself, possessed of certain qualities, and endowed with faculties: the soul is not that which feels and thinks and acts, but is the feeling itself, the thinking itself, and the acting itself; and the faculties, so called, are simply various categories under which the several sets of psychical functions may be subsumed.

"There is as little need for the psychologist to assume a separate soul-being, performing the several soul-functions, as there is for the meteorologist to assume

"a wind-entity, which, by blowing, produces a commotion in the air. According to the positive school, the commotion in the air itself is the wind. But though we deny the existence of a metaphysical wind-entity, winds blow as vigorously as they ever did; and why should the soul of the new psychology be less real than the soul of the old psychology?"

The personality of man, according to Dr. Carus, does not lose its significance because modern science has been so successful in analysing its composition; and the unity of this personality, which is commonly denominated the soul, does not disappear because it has been discovered that man's psychical life is not a compact unit, an atom, or a monad. The soul is a composite existence; yet being an organism, it is possessed of unity. As an organism it is subject to change, but it is not for this reason incapable of growth, of expansion, of advancement, and elevation.

"The main fact of man's psychical activity is the continuity of his soul, for this is the ultimate basis for the identity of a man's personality through all the changes of his development. The continuity and identity of each soul are conditions which beget the feeling of responsibility, and thus force upon man the necessity of moral conduct."

The first questions of psychology, therefore, are the *Whence* and the *Whither* of the human soul. And upon the solution of these questions rest the answers to the main problems of life: "What shall we do?" "How shall we act?" "What aims shall we pursue?"

These answers Dr. Carus has inductively formulated in five chapters entitled (1) The Nature of the Soul; (2) The Mould; (3) Whence? (4) Whither? and (5) Is Life Worth Living? The reader will find here the latest results of biological and psychological research employed for the clarification of the great problems of life.

μ.

SKETCHES OF TOKYO LIFE. By *Jakichi Inouye*. Price, 75 cents. Chicago: The Open Court Pub. Co.

The book, as the title indicates, briefly treats of those aspects of Japanese life at Tokyo that seem to be most attractive to foreign visitors, such as the story-teller, the actor and the stage, the wrestler (*sumô*), the *geisha* (singing and dancing girl), the fortune-teller, the firemen, and the jinrikisha-men. Though written in English, the book is a genuine Japanese production; the printing, the binding, the doubly-folded paper, the cover-page design, the illustrations from blocks (of which there are a good many), and lastly the author himself—being all Japanese. Its English reads exceedingly well, and there is no doubt that the book will prove very entertaining to English readers as it presents many of the quaint aspects of Oriental life. It will form an appropriate Holiday present.

T. S.

SHADOWINGS. By *Lafcadio Hearn*. Boston: Little, Brown & Co. 1900. Pp., 268.

Mr. Lafcadio Hearn has recently given us another collection of short writings dealing mainly with things Japanese, but also containing some of his meditations on more or less "ghostly" topics, for which he has a decided *penchant*. The book may be considered to a certain extent as a continuation of *In Ghostly Japan*, and hence its title *Shadowings*.

The "Stories from Strange Books" which constitute the first part of the work are retold after old Japanese authors whose writings are deeply imbued with the popular superstitions and modes of thought of their time. The second part comprises three articles on "Semi" (cicada) accompanied with five illustrations, on "Japanese Female Names," and on "Old Songs," shedding some light on the emotional, literary, and esthetic side of Japanese life. The third and last section is devoted to the author's own "Fantasies" about certain dreamy, umbrageous, and horror-inspiring subjects,—very proper material for the exercise of mystic and poetical imaginations.

Among other subjects, "Readings from a Dream-book" beautifully brings out the author's philosophy, in which we can trace some Buddhistic thoughts. The book as a whole is very interesting reading, not only to those who love things Oriental, but to those who reflect and philosophise on human life generally. T. S.

Dr. John Martin Vincent, Associate Professor in Johns Hopkins University, thinks that the attractions of the wonderful natural scenery of Switzerland are rivalled almost by its peculiar political institutions, and he avers that to the romantic interest in the dramatic portions of its history "there has succeeded a deeper curiosity regarding the political experience of the mountain republic." To the American reader especially this subject is replete with comparisons. The Swiss federation is similar to our own federal union; the cantons resemble our states. The experiments of the Swiss, therefore, in direct popular legislation, in the nationalisation of railways and industries, and in all the other great social and economic questions of the day, are calculated to afford instructive lessons to Americans; and Professor Vincent's book, *Government in Switzerland*, published in the Citizens' Library of Economics, Politics, and Sociology, deserves wide reading. (New York: The Macmillan Co. 1900. Pages, 370. Price, \$1.25.)

We have to note another number of the Citizen's Library of Economics, Politics, and Sociology. The new book treats of *Political Parties in the United States from 1846 to 1861*, and is one of those works which will contribute greatly to the clarification of popular party prejudices, if it is so fortunate as ever to be read by persons who share the mechanical party-beliefs. The position taken by its author, Mr. Jesse Macy, Professor of Political Science in Iowa College, is "that in each State where Democracy is far enough advanced to give rise to political parties the form of organisation is determined by the political institutions," and that in the case of America the peculiarities of the American party system have been determined by the peculiarities of American institutions. He attributes the decline of the old Federal party to the fact that it was un-American in the form of its organisation, and then traces the development of the party system as differentiated into Whig and Democrat. Lack of adjustment between party machinery and public opinion led to the disruption of these two parties and to the Civil War. Since that war, there have been two distinct periods of party history, the first beginning with the withdrawal of the troops from the Confederate States in 1877, which, according to Mr. Macy, is emphatically the abnormal period of our party history, armies being substituted for party organisations, and supporting these organisations. It was at this juncture that the spoils system reached its perfection, and the control of the party organisations passed into the hands of professional managers devoted to "spe-

cial interests in more or less conscious conspiracy against the people." (New York: The Macmillan Co. 1900. Pp., viii, 333. Price, \$1.25.)

Full reports of the papers and proceedings of the fourth International Congress of Psychology, held in Paris this year, may be obtained from M. Félix Alcan, 108 Boulevard Saint Germain, Paris.

The issues of *The Biblot* (a reprint of poetry and prose for book lovers, chosen in part from scarce editions and sources not generally known) for September and October are: (1) *Svend and His Brethren*, a tale by William Morris, and (2) a critical study of *Ernest Dowson*, by Arthur Symonds. (Thomas B. Mosher. Portland, Me. 5 cents each.)

The September number of the *Revue de métaphysique et de morale* is devoted entirely to the Paris Congress of Philosophy, and the reader will find in its two hundred odd pages full reports of the proceedings and abstracts of the papers of the Congress. The *Revue de métaphysique et de morale* is one of the most progressive of technical philosophical periodicals and deserves encouragement for its furtherance of liberal philosophical studies.

The Jewish Publication Society of America, which issued the translation of Graetz's excellent *History of the Jews*, has secured the American rights to Dr. M. Lazarus's well-known book on the *Ethics of Judaism*, which now makes its appearance in English translation from the pen of Henrietta Szold. Dr. Lazarus, who is now in his seventy-sixth year and was for a long time professor in the University of Berlin, is highly esteemed for his labors in the broad field of Jewish erudition, and his work may be regarded as the fairest and most purely objective statement of Judaism that exists. (Pages, 309.)

The Reformed Evangelical Church of Florence, founded in 1826 under the protection of the Prussian government and the oldest of the Protestant institutions of the renowned Italian city, has found its historian in its French pastor, M. Tony André. The main services of this center of evangelism in Florence are held in French, but auxiliary services are also held in German and Italian. The book contains thirty-three illustrations, and will doubtless find readers among former and future members of the Florence congregation. (Florence: Imprimerie et Librairie Claudienne, 51 Via dei Serragli. Price, 4 francs.)

The Librairie L. Cerf, 12 Rue Sainte-Anne, Paris, has announced the publication of a new review of the philosophy of history, entitled *Revue de synthèse historique*, the purpose of which is to affiliate and unify the various provinces of historical research and to exhibit the joint product of the investigations of these domains in the light of the history of philosophy and of science. The chief subjects which will be discussed are the theory of history, its principles and methods, the determination of the function of sociological research, historiography, instruc-

tion in history, the psychological interpretation of history, the psychology of nations, etc. There will also be departments for reviews of all books in any way connected with historical subjects, departments of notes, discussions, and bibliographies. The editor is Dr. Henri Berr, the author of a thoughtful work entitled *L'avenir de la philosophie*, reviewed in *The Open Court* for January, 1900. The list of contributors comprises many of the most distinguished names of France, not to speak of representatives from Great Britain, Germany, and America. (Bi-monthly, 17 francs per annum.)

The Grand Duchy of Finland in the struggle it is now waging for the preservation of its autonomy against the Russian government has found an able and impassioned advocate in the person of W. van der Vlugt, Professor in the University of Leyden, who has written in French a brochure of two hundred and eight pages entitled *The Finnish Conflict from a Legal Point of View*. The little book is one of a series called *Éditions de l'humanité nouvelle* (Schleicher, Paris). *L'humanité nouvelle*, after which the series is named, is one of the most liberal and progressive monthly reviews of France; it is international in its character and devoted to the sciences, literature, and the arts. The scientific editor is M. A. Hamon and the literary editor, M. V. Émile-Michelet. This review is recommended to persons desirous of keeping in touch with international thought from a French and continental point of view.

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